306.8
Am3

LIBRARY
RECEIVED
DEC 14 1940
U. S. Department of Agriculture

Devoted to
TEXTILE
CHEMISTRY
BLEACHING
DYEING
PRINTING
FINISHING

AMERICAN DYESTUFF REPORTER

ECEMBER 9, 1940
OLUME 29, No. 25

FFICIAL PUBLICATION
of the
PROCEEDINGS
ERICAN ASSOCIATION
TEXTILE CHEMISTS
AND COLORISTS

PONTACHROME*
ORANGE RL

A chrome color of especial interest—Possesses very good resistance to light and shows generally satisfactory dyeing and fastness properties.

- Produces reddish shades of orange.
- Recommended as a base color for producing tans, taupes and grays on fabrics requiring a high degree of fastness to light.
- Suitable for use on automotive upholstery, uniform cloth, upholstering materials and similar type woolen goods.
- Very fast to ammonia, stoving, pressing, steaming, spotting.
- Dyes levelly, exhausts and penetrates well, readily soluble.
- May be applied to slubbing, loose wool, yarn and piece-goods by either the top chrome or chromate methods.
- Can be dyed in open kettles and other equipment ordinarily used for chrome color application.

Skilled technical supervision and modern manufacturing facilities assure processor of consistently high quality products.

*REG. U.S. PAT. OFF.

DU PONT DYESTUFFS

E. I. DU PONT DE NEMOURS & COMPANY, (INC.)
Organic Chemicals Dept., Dyestuffs Div., Wilmington, Delaware

COTTON and RHOPLEX are VERSATILE

COTTON is a versatile textile fiber. From the cotton boll, countless fabrics ranging from dainty dress materials to rugged industrial fabrics are woven. Sheer summer fabrics for dresses, luxurious towels for the home, durable canvas for tents are only a few of the varied potential uses of this fiber. Logical enough, the sobriquet, King Cotton.

RHOPLEX RESINS are even more versatile as textile finishing agents. They add strength, hand, and life not only to cotton, but also to rayon, silk, linen, and other fabrics. RHOPLEX RESINS are clear, odorless, and durable; they are free from the difficulties encountered with ordinary resin finishes. In finishing fabrics—it's King RHOPLEX.

RÖHM & HAAS COMPANY, INCORPORATED

222 West Washington Square, Philadelphia, Pa.

AMERICAN DYESTUFF REPORTER

A. P. HOWES
Publisher

LOUIS A. OLNEY
Directing Editor

NORMAN A. JOHNSON
Managing Editor

MYRON D. REESER
Advertising Manager

Official Publication of the Proceedings of the American Association of Textile Chemists and Colorists

DECEMBER 9, 1940

VOLUME 29 NUMBER 25

American Dyestuff Reporter, Vol. 29, No. 25, Dec. 9, 1940. Published every other Monday. Copyright, 1940, by Howes Publishing Co., 440 4th Ave., New York, N. Y. Domestic subscription, $5.00, Canadian, $6.00, Foreign, $6.00. Entered as second-class matter, Nov. 6, 1919, at the New York, N. Y., Post Office, under the act of March 3, 1879.

Contents

Contents of previous issues can be found by consulting the Industrial Arts Index at your library

• Departments

Trade Notes—New Products..... 679

• Proceedings of the American Association of Textile Chemists and Colorists

Calendar of Coming Events..... P655

Twentieth Annual Meeting

Intersectional Contest

Informative Textile Labeling..... P656

Twentieth Annual Banquet..... P663
Elvin H. Killheffer, Toastmaster

Remarks by Carl Z. Draves..... P664

Research on Cotton..... P666
Dr. Claudius T. Murchison

The Chemical Industry's Role in Preparedness... P669
Harry L. Derby

Woolen Textiles from the Army Viewpoint..... P674
Lieut. Colonel Vere Painter

Meeting, Philadelphia Section..... P662

One Hundred and Twenty-ninth Council Meeting.... P676

A.A.T.C.C. to Serve on A.S.A. Advisory Committee.... P677

Meeting, South Central Section..... P677

Membership Applications P678

Meeting, North Carolina State College Student Chapter. P678

Tests and Classifications for Light Fastness..... P678

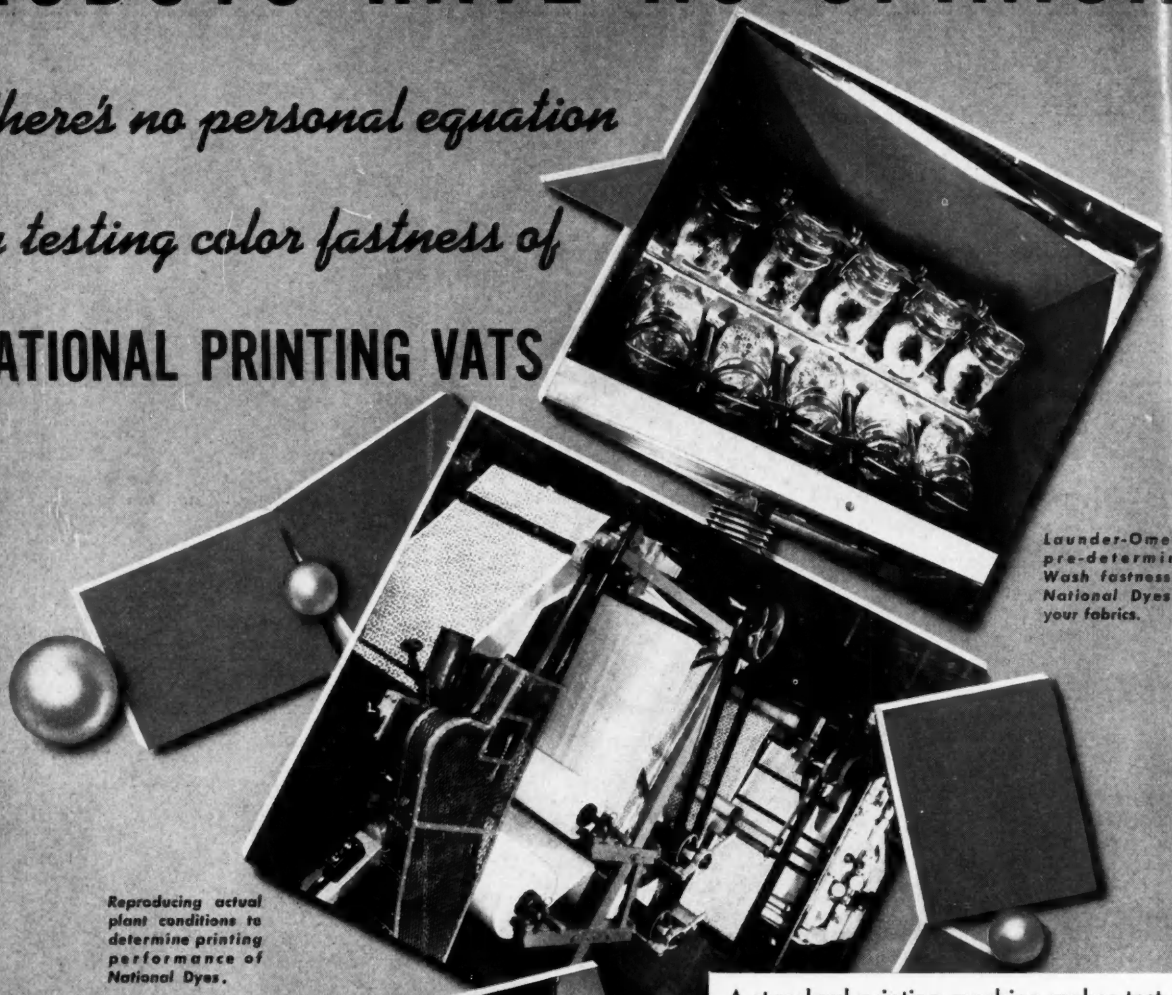
Copyright, 1940, Howes Publishing Co., Inc.

ROBOTS HAVE NO OPINIONS

There's no personal equation

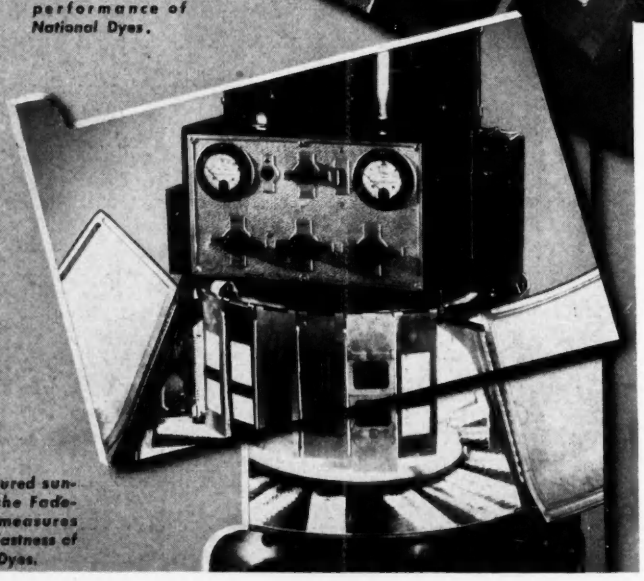
in testing color fastness of

NATIONAL PRINTING VATS



Launder-Ometer pre-determines Wash fastness of National Dyes in your fabrics.

Reproducing actual plant conditions to determine printing performance of National Dyes.



Manufactured sunlight of the Fade-Ometer measures the light fastness of National Dyes.

A standard printing machine makes test runs to duplicate your "sample to match". A Fade-Ometer blazes at swatches. Mechanical agitators swirl them in detergent solutions under controlled conditions. All the practical operations of printing, finishing, storage and even mistreatment by the consumer are magnified in the National Textile Service Laboratory to determine "to the hour" the fastness of National Vats.

National Printing Vats disperse instantly, give you clean, sharp colors in every fine line and stipple of the printing roll . . . flat, level surfaces in the mass areas . . . with fastness that meets or surpasses all accepted color-fast standards.

We invite you to use National Technical Service.

NATIONAL ANILINE & CHEMICAL COMPANY, INC.

40 RECTOR STREET **NEW YORK, N. Y.**

BOSTON	150 Causeway St.	SAN FRANCISCO	517 Howard St.	NEW ORLEANS	Masonic Temple Bldg.
PROVIDENCE	15 Westminster St.	CHARLOTTE	201-203 W. First St.	CHATTANOOGA	James Bldg.
CHICAGO	357 W. Erie St.	GREENSBORO	Jefferson Standard Bldg.	PORTLAND, ORE.	730 West Burnside
PHILADELPHIA	200-204 S. Front St.	ATLANTA	140 Peachtree St.	TORONTO	137-145 Wellington St., W.

BRANCHES AND DISTRIBUTORS THROUGHOUT THE WORLD

PROCEEDINGS OF THE

American Association of Textile Chemists and Colorists

DECEMBER 9, 1940

Officers of the Association

CARL Z. DRAVES, *President*
General Dyestuff Corp., New York, N. Y.

DUNCAN FERGUSON—ARTHUR R. THOMPSON, JR., *Vice-Presidents*

WILLIAM R. MOORHOUSE, *Treasurer*
National Aniline & Chemical Co., Boston, Mass.

HAROLD C. CHAPIN, *Secretary*
Lowell Textile Institute, Lowell, Mass.

LOUIS A. OLNEY
President Emeritus and Chairman of the Research Committee
Lowell Textile Institute, Lowell, Mass.

COUNCILORS
Representing Sections

FREDERIC A. PRISLEY; PETER J. ARIENTE (Rhode Island)
HERBERT S. TRAVIS; CHARLES A. SEIBERT; WILLIAM A. STRINGFELLOW (Philadelphia)
HENRY F. HERRMANN; GEORGE L. BAXTER; HAROLD W. STIEGLER (New York)
KENNETH H. BARNARD; WALTER M. SCOTT (N. New England)
RAPHAEL E. RUPP; A. HENRY GAEDE (Piedmont)
ROBERT W. PHILIP (South Eastern)
HOMER WHELCHEL (South Central)
VIRGIL T. HARTQUIST (Midwest)

Past Presidents

ELVIN H. KILLHEFFER; P. J. WOOD; ROBERT E. ROSE; WILLIAM H. CADY; ALBAN EAVENSON

Local Sections and Their Officers

Northern New England Section

John N. Dalton, Chairman, Pacific Mills, Worsted Division, Lawrence, Mass.
Edward S. Chapin, Secretary, W. C. Durfee Co., Inc., 114 Federal St., Boston, Mass.
Kenneth H. Barnard, Vice-Chairman; John H. Grady, Treasurer

Rhode Island Section

Allison R. Fletcher, Chairman, Franklin Process Co., Providence, R. I.
Louis D. Fleming, Secretary, Woodlawn Finishing Co., Pawtucket, R. I.
B. Verity, Vice-Chairman; R. R. Farwell, Treasurer

New York Section

J. E. Meili, Chairman, Sandoz Chemical Works, 61 Van Dam Street, New York, N. Y.
P. J. Kennedy, Secretary, E. I. duPont de Nemours & Co., Inc. 40 Worth Street, New York, N. Y.
Edward H. Schmidt, Treasurer; H. R. Tisdale, Vice-Chairman

Philadelphia Section

Harold B. Dohner, Chairman, Amalgamated Chemical Corp., Trenton Ave. and Auburn St., Philadelphia, Pa.
James P. Conaway, Secretary, 5947 Belden St., Frankford, Philadelphia, Pa.
John F. McCoy, Vice-Chairman; George E. Kohn, Treasurer

Piedmont Section

H. E. Kiefer, Jr., Chairman, Ware Shoals Mfg. Co., Ware Shoals, S. C.
R. D. Sloan, Secretary, E. I. duPont de Nemours & Co., Inc., Greenville, S. C.
L. M. Boyd, Vice-Chairman; R. D. Howerton, Treasurer

South Central Section

Fletcher L. Kibler, Chairman, United Hosiery Mills, Chattanooga, Tenn.
Frank F. Myers, Secretary, Geigy Co., Inc., Chattanooga, Tenn.
Jack Anderson, Vice-Chairman; J. T. Bohannon, Treasurer

Midwest Section

Herman Boxser, Chairman, Western Felt Works, 4115 Ogden Ave., Chicago, Ill.
David Anderson, Secretary, Nyanza Color & Chemical Co. 549 West Randolph St., Chicago, Ill.
A. G. Alexander, Vice-Chairman; F. J. Acker, Treasurer

South-Eastern Section

Perrin N. Collier, Chairman, Callaway Mills, LaGrange, Ga.
Curt Mueller, Secretary, Bibb Mfg. Co., Macon, Ga.,
L. L. Bamberger, Vice-Chairman; A. R. Macormac, Treasurer

Lowell Textile Institute Student Chapter

George D. McTeague, Chairman; S. J. Puliafico, Secretary

North Carolina State College Student Chapter

William S. Pearson, Chairman; George W. Funderburk, Secretary

Philadelphia Textile School Student Chapter

Ralph Hoey, Chairman; Joseph E. Dunson, Secretary

Members should notify the **Secretary** immediately of all address changes

CALENDAR OF COMING EVENTS

Meeting, New York Section, Chemists' Club, New York, N. Y., December 13, 1940. Speaker: R. W. Jacoby, Ciba Company, Inc., "Trends in Printing and the Use of Resins in Finishing."

Meeting, South Central Section, Read House, Chattanooga, Tenn., February 8, 1941.

Informative Textile Labeling*

YOU may wonder why the New York Section has chosen to present for this contest a paper on the labeling of textiles for the ultimate consumer. The body of the paper will throw more light on the reasons for our choice. However, at the outset, a brief word of explanation may help to show how textile labeling directly concerns the A.A.T.C.C.

We in the New York Section are located geographically, in close contact with the wholesale and retail channels of textile distribution. By reason of this favorable position, we are able to see informative labeling as a complete picture—able to observe the operation of labeling, to feel the increasing demand for it, to watch the results. We see further how this movement offers the A.A.T.C.C. an opportunity to render a genuine service to our industry. Coming closer to home, we see how informative labeling can help every member of the association in his daily work. Even more important, it can help to render his future in his profession more secure.

You have all heard much of the so-called Consumer Movement. This movement is, today, a powerful one; is gathering momentum, and is definitely here to stay. It is estimated that one-third of the housewives of our country are involved in this consumer movement in one way and another—chiefly through affiliation with local women's clubs, which are controlled to some degree or definitely

*Presented by the New York Section at the Intersectional Contest, Annual Meeting, October 18, 1940, New York, N. Y.

ORGANIZATIONS ACTIVE IN THE CONSUMER MOVEMENT

Organized Consumer Groups

WOMEN

- Amer. Assoc. of University Women
- Amer. Home Economics Ass'n
- Amer. Nurses Ass'n
- City Club of Albany
- Consumer Conference of Greater Cincinnati
- Consumers Institutes of Mass.
- General Federation of Women's Clubs
- League of Women Shoppers
- National Council of Catholic Women
- National Council of Jewish Women
- Nat. Federation of Business & Prof. Women
- National Institute of Family Living
- National League of Women Voters
- National Women's Relief Society
- Women's Nat'l Expos. of Arts & Industries
- Women's Trade Union League

EDUCATIONAL

- Amer. Ass'n of Adult Education
- Amer. Home Economics Ass'n
- National Foundation for Consumer Education
- Institute for Consumer Education
- Nat'l Congress of Colored Parents & Teachers
- Nat'l Congress of Parents & Teachers
- Nat'l Council of Business Education

CHURCH

- Federal Council of Churches of Christ
- National Council of Catholic Women
- National Women's Relief Society

LABOR

- Amer. Consumers Union, Inc.
- Consumers League of America
- Consumers League of N. Y.
- Consumers Protection Label
- Intnl. Garment Workers Union
- League of Women Shoppers
- National Consumers League
- People's Press
- Women's Trade Union League

COOPERATIVES

- Consumers Cooperative Service, Inc.
- Consumer Distribution Corp.
- Consumer Mail-Order Cooperative
- Cooperative Distributors, Inc.
- Co-op League of U. S. of Amer.

PRIVATE ORGANIZATIONS

- American-Bizarre
- The American Consumer
- Answers Magazine
- Better Buymanship
- Consumers' Research
- Consumers Shopping Guide
- Consumers Union
- Household Science Institute
- Committee on Valid Certification
- Consumers Bureau of Standards
- Consumers Forum
- Consumers Homemaking Advisory Com.
- Consumers Quiz Club of the Year
- Inter-Mountain Consumers Service
- Nat'l Consumers Advisory Service
- Nat'l Consumers Research Bureau
- Western Consumers Union

COORDINATING GROUPS

- Advisory Com. on Ultimate Consumer Goods
- American Standards Ass'n
- Consumers Foundation
- Consumers National Federation
- National Consumer-Retailer Council

MISCELLANEOUS

- Committee on Consumer Cooperation (NABBB)
- Consumer Interests Bldg., N. Y. World Fair
- Institute for Propaganda Analysis

Government Consumer Activity

FEDERAL

Dept. of Agriculture

- Agricultural Extension Service
- Bureau of Agricultural Economics
- Bureau of Home Economics
- Consumers' Counsel Div. of AAA
- Office of Information
- Food & Drug Administration

Dept. of Commerce

National Bureau of Standards

Dept. of Interior

- Office of Education
- National Bituminous Coal Commission

Dept. of Labor

- Consumers' Project
- Bureau of Labor Statistics
- Farm Credit Administration
- Federal Trade Commission
- Rural Electrification Administration
- Works Progress Administration

STATE AND LOCAL

- State Department of Consumer (N. Y.)
- State Bureau of Consumers (Mich.)
- Consumers Division (Minn.)
- Connecticut Consumers Information Service
- Consumers Div., N. Y. C. Dept. of Public Markets

influenced by national associations of women. At least four-fifths of our women's colleges have broadened the scope of their home economics courses—now offer courses in consumer buying that fit right into the consumer movement and bear directly on the subject of labeling. Government extension work and home economics courses in the lower schools swell to sweeping proportions the number of women qualified to appreciate and intelligently respond to informative labeling efforts.

The motivating causes behind the consumer movement are a natural outgrowth of our highly industrialized modern life. Industrialists and industrial machines have produced a magnificent array of goods for consumption. Literally thousands of articles for daily use have benefited from the application of modern industrial research and technical precision.

If you, as trained chemists, are often baffled over the evaluation of dyestuffs or of auxiliary products which manufacturers recommend for certain of your operations, you can readily appreciate the helplessness of the retail buyer in attempting to reach a decision through eye judgment alone, or by depending upon price differences to establish quality levels. Unfortunately, consumer prices are not always a measure of quality, because it happens very often that comparatively unknown, inexpensive merchandise offers better money value than higher priced goods. Factual labels would certainly help this situation.

The consumer has inherited unprecedented benefits, and at the same time the consumer inherits a problem. For it is undeniably a problem to buy intelligently from the complex array in the markets today. In a sense, the consumer movement is an effort on the part of the buyer to catch up with industry—an effort on his or her part to become an intelligent receiving end for the wealth of goods that industry is pouring from today's horn of plenty.

It is the purpose of the consumer movement to obtain and disseminate among the public information regarding all sorts of merchandise. In many cases, it involves a protest against malpractice in the deliberate misrepresentation of values, as well as the unintentional mis-statement of facts, which often does as much damage. It is working for the protection of the consumer in the establishment of legislation, both state and federal, for the regulation of industries which sell to the public. The textile industry, of course, is an important field for such work.

The problems arising from the consumer movement involve a complex social phenomenon. In it are elements that are both constructive and destructive, but, generally speaking its main objects are sound. Certainly, increased public knowledge of how to select, buy, and use consumer goods is meritorious, and will in most cases bring increased public appreciation of those goods.

Let us now discuss our understanding of the term "informative labeling." In brief, informative labeling means marking fabrics or garments with accurate, practical and factual information on the nature of the article—what it is made of; what the consumer may expect of it; how she must care for it to secure the serviceability that was built into it.

When we try to decide just what information should be given on textile labels we strike our first controversy. Certain consumers, organizers of consumer groups, and some educators, demand *all* the facts.

Some manufacturers prefer not to provide complete data regarding their products because it might mean revealing trade secrets of their fabric constructions to competitors. Thoughtful manufacturers and retailers fear such a system would lead to standardization of construction with eventual stagnation of design. Conservative retailers who deal with the public tell us such complete information is unintelligible to the consumer, and, would, therefore, only confuse and delay the selling operation.

On the other hand, retailers are often at a loss to explain to a customer why she should pay more for one quality than for another. Some factual data would clarify many of these all too common mysteries.

All merchandise has some features which are easily apparent to the eye or to the touch, but there are other characteristics which the eye cannot see. It is the accurate revelation of these hidden qualities which constitutes one of the greatest values of the merchandise label to the manufacturer, seller and buyer. It is this hidden data that accounts for price differences and justifies the expenditure of a little extra, for what is often very much better service. Many a fine fabric lies on the counters unsold because there seems to be no justification for its higher price in comparison with some less expensive line. Sales people may not be sufficiently informed to convince the consumer that the better article will prove to be the cheaper in the long run. Isn't this the reason why there is a continual degrading of merchandise so as to get it into the next lower price bracket, as an aid to its easy sale? Conversely, wouldn't it be much better to give the buyer intelligent reasons for purchasing better merchandise at a higher price. Informative labels, through proper grading, can supply the reason for the added expenditure and persuade the consumer to pay it willingly.

Large retailers who have made a serious effort to label their merchandise factually tell us that they need first of all a simple qualitative description of the article and a plain, honest appraisal of its contents and service properties. For the education of salespeople, for the protection of the store and for the guidance of educated consumers, these retailers feel that some really pertinent factual data should be given to support the general statements.

For simplicity and efficiency of distribution, universal terminology should be adopted for fabric labeling, so far as is possible. The terms should be backed by standard tests and the standards should be self-grading, so the salesperson can sell, and the consumer buy, intelligently.

Textiles include so broad a range of merchandise it seems unlikely that any workable universal labeling pro-

cedure can be set up by sources *outside* the industry. A *sound* labeling program can come only through scientific research into the consumer requirements applicable to each group of textile products. Only the industry concerned can accomplish this task effectively. Given a good labeling procedure, retailers and cooperating educators can rapidly show the consumer how to use it.

With our background of achievement in the formulation of standard tests and from a position closest to the manufacturing processes, we of the A.A.T.C.C. are well fitted to reconcile the divergent opinions on labeling in a practical set of tests, terms, and classifications that may become the basis for genuine informative labeling.

By far our largest responsibility, and one that our association should learn to respect, is the fact that *we* are the *only* group, *national* in scope, which has the technical equipment to act as a fact finding body and is able to establish what is the *truth*—to work out standards which are fair and commercially attainable and will merit national recognition; to devise methods whereby the relation of merchandise of unknown quality to these standards may be determined impartially and, lastly, to promulgate this information for the benefit of all.

It is with pride that we recognize the fact that our standards and tests are the foundation of those which will constitute the basis of federal control over voluntary and mandatory labeling. For the most part, they have been adopted by the National Bureau of Standards of the Department of Commerce just as we published them. They appear in the well known CS 59-39 and are in process of recognition by the American Standards Association. It is for this reason that we have thought it well to disseminate them widely throughout the country. In consequence, several thousand reprints of the section of our new Year Book pertaining to them will be sent to schools, laboratories, stores, consumer groups and others who, we believe, may be interested in them. This has not been done merely to advertise the association or out of vanity because of achievements which we know are not finished. It is done to alleviate the crisis in which the industry now finds itself as it faces government regulations and the necessity for something solid, something tangible, something satisfactory and attainable about which regulatory developments can be formed.

Our association has nothing to sell and it has nothing to lose by telling the truth, therefore, it is no effort to be impartial in our judgments. It has in its ranks, representatives of the textile industry coming from all the quarters of this country, therefore, our vision is not impaired by sectionalism. Because our membership is a cross-section of the industry and because we draw upon the best informed individuals who are sufficiently liberal and interested in their profession to be willing to contribute their time for this work of national scope, we have access to the most dependable data which is available. It is only natural that outsiders, yes, national institutions, universities and other professional associations should lean on *us* for facts and advice pertaining to problems in the dyeing, printing and finishing of textiles.

Some years ago, when we first started to work on fastness standards and methods, our horizon was not so broad. We merely wanted to correlate the claims for fastness to light and washing and certain other factors of dyestuffs offered by different manufacturers. This was to be helpful to the producers of colors and even more so to the dyers and printers who use them. It wasn't long before dye manufacturers adopted our color classifications and most of the conflicting and sometimes misleading terminology disappeared. Dyers in turn were able to describe their work in terms of our fastness groups and so the converters and the commission houses became acquainted with them and it is needless to mention the enormous amount of testing that is being done by them direct or through consulting laboratories. Eventually department stores and mail order houses found our methods effective and convenient and now we are able to carry our story to the ultimate consumer. It is a natural transition and it brings us so close to the retail sales counter that it is not merely interesting, but it is our duty to see for ourselves in what way our work is reflected in the sales talk or the informative labels on goods when offered to the public.

Those of us who were consumers a generation ago, will remember the early labels used in our industry. We show here a few labels our mothers and grandmothers knew so well.

Early labels used in the Textile Industry. You will note the absence of any reference to fiber composition.

With the advent of new fibers with vastly new properties, a demand for labels produced a great many like these:

Seven Typical Early Rayon Labels. Identification as "rayon" is conspicuously absent. One states "Pure Dye"; another "Pure Dye Celanese." Although not visible, almost all give washing instructions on the reverse side. "Crown Tested" labels stating "Tested and endorsed for its consumer wearing qualities" was an early effort at informative labeling.

Three years ago, the Government entered the picture, ordered that rayon fabrics be identified. This order produced labels like these:

Fiber Identification Labels. Notice that all of these labels give fiber content and that the word "rayon" is given more and more prominence and is even being used as a selling point. Labels are becoming more artistic and are being used as a sales influence.

Only two weeks ago, both houses passed the "Truth in Fabrics" Bill, regulating the labeling of wool. At this point and illustrating the trend in the industry, the retailer will not be caught unprepared. Labels are already in use telling the consumer how much and what kind of wool she is buying.

There are now three agencies of the Federal Government supervising the labeling of textiles; the Department of Agriculture has set up rules for the grading and marking of cotton and wool fibers. The Federal Trade Commission has set up trade practice rules for various textile industries, including those on fiber content and residual shrinkage. The National Bureau of Standards has already set up no less than sixteen voluntary trade standards applicable to textiles.

Sooner, or later, the voluntary labeling of merchandise with respect to color durability also will turn into mandatory labeling and very definite standards will be set up such as are now found in Commercial Standard CS 59-39, which resulted from an appeal of the National Retail Dry Goods Association to the U. S. Department of Commerce and was worked out by a representative group of experts from all the industries directly involved in the production of certain materials and then was promulgated by the National Bureau of Standards. This is not a law but it has very powerful backing and it won't be long before it will have a legal status. The fastness standards and methods contained in CS-59-39 are our own A.A.T.C.C. standards and methods.

Currently and properly, much of the labeling discussion concerns color fastness. You are all familiar with the very excellent work the N.A.F.T.F. has done in cooperation with our association in setting up standard tests and terms for color fastness. These tests and classifications are now on their way to approval as at least a permissive system of identification. Already we see the results in operation. We firmly believe that their general acceptance is based on their factual sponsorship by the A.A.T.C.C.

Pacific's "Factags." On the face of each label, Pacific features the trade name of the fabric, its fiber content, and outlines its general properties. On the reverse side, the whole story of color fastness is given, set up according to the tentative standard developed by the N.A.F.T.F. in cooperation with the A.A.T.C.C.

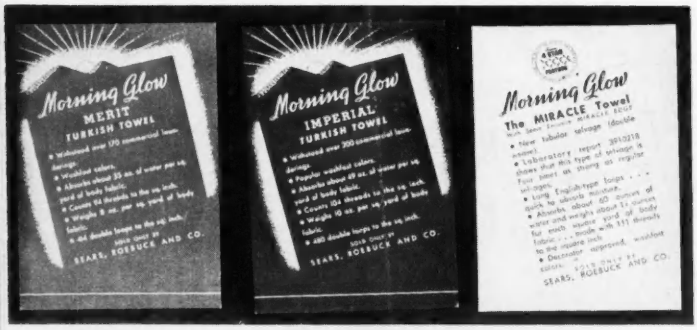
All of these last few labels we have shown are informative to some degree. They are a step in the direction we are going. Whether we want it or not, truly informative labeling will spread until it becomes the standard practice of our industry. Informative labeling will grow best under the scientific yet disinterested auspices of our association. With our help and guidance it can avoid troublesome and costly excursions into blind alleys. Gentlemen, "Informative Labeling" is a challenge and an opportunity for constructive achievement.

Here let us stop for a moment and see what intelligent labeling can do for our industry. First, it can eliminate much of the dishonest misrepresentation and unfair competition that has dragged our industry to its lowest depths of profit and stability. With common requirements to be met by competing manufacturers, a floor lies under costs, and cutting price under cost becomes industrial suicide. General adoption of informative labeling would help stabilize the economic side of our industry. This end alone would justify all of the effort you could put into developing a labeling program.

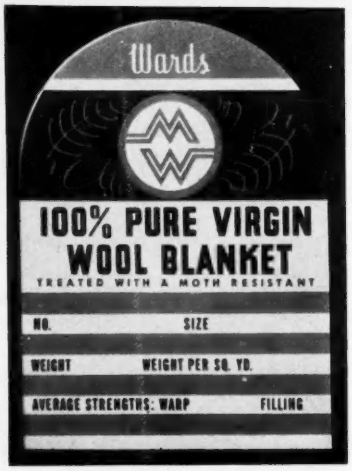
Informative labeling however goes farther than this—it makes sales easier for your customer, the retailer. For example, Sears Roebuck have done a splendid job of informatively labeling thousands of the things they sell by mail and in their stores. Let us show you a few of Sears' and Ward's informative labels.

Ward's Sheet Labels. Here, too, labels tell the whole story, show why better grade costs more and stating, in addition to technical differences, that the lower priced sheet should give at least 4 years' service and the better grade 7 years, on the basis of laboratory tests.

R. H. Macy's in New York, a few years ago, found that certain undergarments were selling at ruinously low prices, prices which could mean only a loss for everyone involved—finisher, converter, cutter, and the store. In the face of an established retail price of 25 cents per garment, Macy's improved the fabric in use and the construction of the garments, then developed this label to tell the true story of the item to the customer:



ABOVE—Sears' Towel Labels. These Sears' towels sell at 19 cents, 25 cents and 35 cents respectively, from left to right. Notice that each label tells the exact properties of each quality—number of launderings each should stand, absorption rating, thread count, weight, loops to the square inch, etc. Such labels tell the consumer why each better grade costs more than the less expensive one. These labels show why the consumer should buy the best.



RIGHT — Ward's Blanket Label.

"CHANDA"
is Macy's name for this Bemberg* rayon knit garment. Before it was certified, the merchandise was sampled.
—Its threads were examined under a microscope.
—A machine tested its bursting strength wet and dry.
—An abrasion machine gauged its durability.
—It was tested for resistance to perspiration.
—A washing machine measured its shrink resistance and color permanence.
—It was measured for precision of size and examined for quality of workmanship.
THEREFORE, THIS GARMENT IS WARRANTED FOR LONG WEAR AND SATISFACTORY SERVICE
TO LAUNDER:
Use neutral soap and water at wrist temperature (98.6° F.). Rinse thoroughly after washing without wringing or twisting, and hang (do not use clothespins) to dry over a taut line. While still slightly damp shape to size and iron, if desired, on wrong side with moderately warm iron.
*Reg. U. S. Pat. Off.

Macy's "Chanda" Label. Cheap competitive garments were made of viscose rayon. Macy's "Chanda" was made of Bemberg yarns. The superior properties of this yarn as well as the better construction of the "Chanda" garment are fully described on this label.

This garment now sells at 69 cents and, to the surprise of the store executives the "Chanda" at 69 cents far outsells competitive garments at 29 cents.

IRONSPUN* from which this suit is tailored, is 90% virgin wool and 10% long staple cotton. It will
WEAR WELL. Breaking strength — minimum 45 lbs. in the warp direction, 40 lbs. in the filling direction — which means Ironspun* is an unusually strong fabric.
CONTINUE TO FIT PROPERLY. Shrinkage in dry cleaning and steam pressing is not more than 1%.
GIVE GOOD SERVICE. Ironspun* is trimmed with durable 3-ply mercerized cotton thread for all seams, buttons, and button-holes; lined with high count rayon; and interlined with cotton-an-rayon.
CLEAN EASILY. Send it to any good commercial dry cleaner.
*Reg. U. S. Pat. Off.
R.H.Macy & Co.
NEW YORK
OK
MACY'S BUREAU OF STANDARDS

This is an example of a non-technical label which tells most of the facts which the consumer wants.

The files of the U. S. Bureau of Standards are full of examples of industries which adopted informative labeling with similar results in trading up of quality.

There can be no doubt that informative labeling can do as much for our industry, that it can create stronger demand for better quality fabrics. True, it will increase production costs to some degree. It will, however, reduce unfair competition and put more of our products on a profitable basis.

Some of our industry have expressed a fear that labeling might hurt sales of cheap goods. Such has not been the case in practice, in any industry which has adopted informative labeling thus far. The consumer is not in the least afraid to buy cheap goods. In practice, she buys them more readily when she knows what she is getting for her money. Truthful labeling serves to prevent the consumer from expecting too much of cheap goods and then becoming dissatisfied with her purchase. This would be a boon to our industry. Too long, too many manufacturers have catered to the whims of the bargain hunter and enforced inability to continue doing so will not only help these manufacturers but our whole industry as well.

It is not likely that informative labeling will increase the volume of goods sold to any material degree. Volume, however, is not the basic trouble with our industry. For years we've been worried over how we can get some return for our labors, how we can sell our goods for more than they cost to produce. No single step in this direction offers more promise than informative labeling. We in the New York Section are convinced that only through informative labeling can our industry hope to improve permanently, its profit possibilities, to cut down the peaks and raise the valleys on our profit charts, to stabilize our own companies and the personal opportunities of all who work for them.

Gentlemen, you are doubtless in full agreement with what we have said. "Right," you say; but you ask, "What can we do to bring it about?"

Whose responsibility is it to label merchandise as to color quality? The logical duty devolves on the party that is in possession of the facts and has the facilities to make tests and to verify every claim that is to be made. In this respect much of the current procedure in the way of labeling is wrong and is responsible for much confusion and misunderstanding. One does not like to use the term "misbranding" because this sounds intentional, and we would rather discuss only the cases where mis-statements are made through error or exaggerated enthusiasm.

A point which we wish to emphasize is that informative labeling usually commences at the source of the material and if the manufacturer does not supply the data it has to be determined at considerable expense somewhere along the line by the converter, clothing manufacturer, or the retail store. Although it is generally inferred that these informative labels are for the sole benefit of the ultimate consumer—this is not true—because all the links in the chain between the manufacturer and the public are equally benefited by factual information regarding merchandise. Throughout the industry there is considerable unrest due to the gap in such information between the manufacturer and the retailer. Let us consider a few examples. Within the past ten days the Textile Fabrics Association, in a careful consideration of color performance on spun rayon fabrics used in making men's and women's wear with a view to setting up minimum standards of light and wash fastness, arrived at this conclusion: "Each member of the association should secure from his finisher a definite guarantee as to color performance . . . based on a laboratory test. This guarantee to be preferably embodied in the finisher's quotation, or by letter. *Verbal representations on the part of the finisher on this question should not be accepted.* Otherwise, should the converter be called or questioned as to statements or label representations which he has made concerning color performance of these fabrics, difficulty might be experienced in establishing the representations which the finisher has made to him. The Federal Trade Commission has been giving consideration to, and in some cases action has already been taken, on representations made concerning color performance, and in the opinion of the commission it has been found that representations in certain cases are not in line with the facts." There is no sounder basis for labels intended for retail selling than factual information which the manufacturer, himself, supplies. This is the link upon which the entire structure depends and, as mentioned before, our association's standards and tests are the recognized guides to the manufacturer in developing his descriptions and guarantees.

Another example of the operations of this labeling plan and the close supervision which the Federal Trade Commission has over the subject, is shown by its recommendation to manufacturers of drapery and upholstery materials

to discontinue all claims for light fastness unless the fabrics in question truly merit such a rating. The response of the manufacturers of drapery materials has been an agreement among themselves to discontinue the use of the term "guaranteed fast to light" on their production and to substitute instead, the statement—"dyed or printed with the best vat dyestuffs." This statement is not intelligible to the public but it will serve as a basis for legitimate labeling on the part of the retailer, who will know what can be expected from "the best vat dyestuffs."

We all know the type of advertising copy writer who operates on the theory that nothing but superlatives will sell goods. The better industries, however, are curbing his enthusiasm and demand of him instead the more difficult task of developing sales appeal through truthful statements made in such an attractive manner that they create consumer confidence not only in the article which is being described, but also in the organization behind it.

A department store official recently remarked how wonderful it would be if the wagging tongues of the sales people in his great store could be "metered." We are again confronted with the same situation. The clerk wishes to make a sale and feels that eloquent praise of the article is necessary. If there is no label on it that states the true facts, almost any sort of misguided misrepresentation may result. Who, may I ask, benefits from such an occurrence? The store? certainly not, because it will probably lose a customer who believes that the misrepresentation was sponsored by the management. On the contrary, if the merchandise is truthfully labeled by the manufacturer with respect to the salient points of color fastness, no advertising writer or sales person could very well make an honest mistake in misrepresenting it to the public.

The A.A.T.C.C. is the recognized scientific body in our industry. We have already set up standard tests for textiles that are in universal use by the industry. We have told manufacturers and reailers how to test textiles for every conceivable property. We in the New York Section suggest we now go further.

We suggest that there be set up a committee to study the question of interpreting our tests for the consumer as well. The A.A.T.C.C. can best tell converters, cutters and retailers what can be said about textiles, how they should be graded and how the grades can be described to the public to best advantage.

The task of establishing a broad system of informative labeling is one of enormous magnitude. We can provide the scientific background and lead the way. We will need a great deal of help—from the weaving and finishing groups, from the yarn, dyestuffs and chemical manufacturers, from the merchandising organizations of our own companies, from converters, garment manufacturers, from educators, from trade and consumer editors, from the interested government departments, and, last but not least, from consumers themselves. By and large, all of these groups are anxious to see a sound labeling system set up. All have expressed a wish to cooperate. They wait only responsible leadership and a sound program they can follow. You may not have realized it before, gentlemen, but they are looking to us to lead the way in the new atmosphere of stability and sound merchandising.

It is for the best welfare of our industry and in our own personal interest that we accept the responsibility offered, approach it with a will to succeed and with an open mind as regards final details of the program to be adopted.

ACKNOWLEDGMENT

In closing:—For the thoughts expressed in this paper, for the conditions described and, generally, for the suggestions advanced, we are indebted to the following who have taken the trouble to set down their ideas for our benefit, have given most freely of their time for consultation and their records for supporting data. The conclusions we have arrived at however are personal to the committee which prepared this paper and are not in any sense binding on the sources of our information or to the companies we are associated with.

A. G. Ashcroft, Director, Engineering Dept., Alexander Smith & Sons.
Fred C. Hecht, Manager, Informative Labeling, Sears Roebuck & Company.
John A. Spooner, Advertising Manager, American Viscose Corp.
T. L. Blanke, Manager, Merchandising Division, N.R.D.G.A.
Frank Stutz, President, B.F.T.B.
Ephraim Freedman, Bureau of Standards, R. H. Macy & Company.
E. M. Edgerton, Manager, Cost & Color, Pacific Mills.
Herbert A. Ehrman, Division of Trade Standards, National Bureau of Standards.
Henry T. Miller, Federal Trade Commission.
Miss Bernice S. Bronner, Head, Textile Laboratory, Good Housekeeping.
Miss Katharine Fisher, Director, Good Housekeeping.
Colonel C. F. H. Johnson, President, Botany Worsted Mills.
A. L. Brassell, Asst. to President, U. S. Testing Co.
K. B. Willson, Better Business Bureau.
George Baxter, Bradford Dyeing Assoc.
Nino da Parma, Celanese Corporation.

Contest Paper Committee
HENRY F. HERRMANN
LEONARD LITTLE
J. ERNEST MEILI

MEETING, PHILADELPHIA SECTION

THE first meeting of the 1940-41 season was held at the Penn Athletic Club on Friday evening, November 1, 1940, with Vice-Chairman John F. McCoy in charge. We had as our principal speaker Capt. Albert E. Dennis, of the U. S. Quartermaster Depot. His subject was "Color in Military Fabrics."

Charles A. Seibert of our Section also gave us a brief resumé of the paper which he presented for our Section at the Annual Meeting which was held in New York in October.

Attendance for the meeting was 118.

Respectfully submitted,

J. P. CONAWAY, *Secretary.*

Twentieth Annual Banquet

Annual Meeting, Hotel Commodore, New York, N. Y., October 19, 1940

Toastmaster: **ELVIN H. KILLHEFFER**

TOASTMASTER KILLHEFFER: Mr. President, Honored Guests, Ladies and Gentlemen of the Association: First I want to read a message of greeting from Governor Lehman of New York and a telegram from Honorable Bruce Barton, Congressman from New York, which were addressed to the general convention chairman, Mr. P. J. Kennedy:

My dear Mr. Kennedy:

I am in receipt of your letter of September 23rd in which you advise me that the next annual National Convention of the American Association of Textile Chemists and Colorists will be held at the Commodore Hotel on October 18th, 19th and 20th and inviting me to attend the banquet on Saturday, October 19th.

I greatly appreciate the invitation and sincerely wish I could avail myself of it. Unfortunately, I have other engagements of long standing which will keep me occupied throughout the evening of Saturday, October 19th. Under the circumstances I am sure you will understand why it is not possible for me to attend, much as I wish I could arrange it.

May I ask you to convey my hearty greetings and best wishes to the officers and members of your association. I hope the convention will be most enjoyable and a great success from every standpoint.

Very sincerely yours,

HERBERT H. LEHMAN

Dear Mr. Kennedy:

Congratulations to you and to all your members on your twentieth convention. I am ever so sorry that other important engagements make it impossible for me to be with you. My kindest regards and best wishes to all.

BRUCE BARTON

I have a shock for you and also, I think, a relief. Each of the gentlemen at this table has been allotted fifteen minutes minimum, but not to exceed thirty minutes, to speak to you. (Laughter.) But we have succeeded in buying most of them off. (Laughter.)

However, I would like to take just a moment to introduce these gentlemen to you so that you may know who they are. It will take but a moment, and I will ask them to take a bow as I call on them. I will start down here with Dr. Meili, the Chairman of the New York Section. (Applause.) Dr. Chapin, the Secretary of the National Association, (Applause); Mr. Gossweiler of Sandoz Chemical, (Applause); Mr. Halbach of General Dye, (Applause); Dr. Rose of a small company down in Delaware, du Pont, (Laughter and applause); Mr. Eavenson, the most recent Past President of your Association, (Applause); "Senator" Ford of Michigan, (Applause); Colonel Painter of the Quartermaster Department, (Applause); Your president, Dr. Draves, (Applause).

At the other end, Mr. Kennedy, the Chairman of the Arrangements Committee, (Cheers and applause); Mr. Thompson, Vice-President of the Association, (Applause); Bob Philip, General Lee's representative here, (Laughter and applause); Mr. Marshall of Ciba, (Applause); Mr. Buser, (Applause); Mr. Herrmann, (Applause); Mr. Robinson of du Pont, (Applause); Mr. Moorhouse, the National treasurer, (Applause); Mr. P. J. Wood, another "ex," like myself, (Applause); Dr. Olney, the President-Emeritus, (Cheers and applause); Dr. Murchison, (Applause); and Mr. Derby, (Applause).

Having now introduced the speakers to the audience perhaps I should tell the speakers something about the audience so that there will be a perfect understanding both ways.

You will understand, gentlemen, that most of the men that you see before us are textile manufacturers, and you see that they look very prosperous, all of them. They are all pretty much in the condition of the textile man who retired a short time ago, after thirty years of activity in the industry and told some friends that he had a half-million dollars in cash in the bank. They asked him how he accounted for that.

He said he accounted for that very easily. By the way, I didn't mention that he was in the cotton finishing part of the textile business. (Laughter.) He said that for thirty years he had devoted himself very carefully to the business, had lost no time, had watched every point where economies could be effected, he had treated his customers very honestly—and his father had recently died and left him $499,999.50. (Laughter and applause.)

The rest of the audience I can tell you is made up very largely of chemists and colorists, as the name of the organization signifies.

I overheard a conversation out in the hall this after-

noon. One gentleman said to another, "I am a little at a loss as to how to talk to some of these fellows. They all have a lot of degrees behind their names, a lot of letters, and I really don't know what they mean. There was one fellow who had B.S., M.S., Ph.D. What in the world could all that mean for any one man to have?"

The fellow that he was speaking to said, "Well, you know what B.S. means?" (Laughter.)

And he thought a minute and said, "Yes, I think I do." (Laughter.)

The other fellow said, "Well, M.S. is more of the same (laughter) and Ph.D. is piled hip deep." (Laughter and applause.)

We are to hear considerable this evening about defense of our country, and I can't resist the temptation while I am on my feet to say just a serious word about that, particularly as it refers to economic defense.

We are at this Annual Meeting facing a future that is uncertain indeed. Many of us would like to be able to look into the future and see what it holds. We expect to see an impoverished Europe if the fight ever gets finished. We see war in the Far East with the destruction and impoverishment there, and we also see in the Far East a rapid industrialization. When the fighting stops we can expect that we will witness an economic warfare such as we have never seen before. Our equipment at the moment to meet that economic warfare is probably in a state similar to the state of our military equipment at the moment. We see in the first place a very great disparity between ourselves and all the rest of the world. I speak now of our living standards and everything that we are accustomed to in our everyday life. This great disparity is going to make it very difficult for us to hold our own with what we may find in a pretty hostile world when the war stops.

I simply want to express the thought that any strength that we may have in the conduct of external trade, will depend entirely upon the wisdom that we devote to the protection of our internal economy, for it is on that, after all, that whatever strength we have is based. Work will certainly be the basis of our strength and not the more abundant leisure. If a fight comes none of us wants to back away from it, although we don't look for it.

I am tempted to go on a little further, but we have many interesting speakers and we had better get started.

First I want to ask our president, Dr. Draves, to address you. He says that what he has to say is not lengthy, but I am sure that you will find it most interesting.

Dr. Draves, president of the Association! (Applause.)

Remarks by

DR. CARL Z. DRAVES

PRESIDENT DRAVES: I am very happy indeed to have the honor of speaking to you as your president at this, the Banquet of the Twentieth Annual Meeting of our Association. I do not intend, however, to take but a few minutes on this occasion because I cannot tell stories as does our Toastmaster and because you will be far more interested in what the other more distinguished speakers have to tell you.

I do want to say something serious tonight, however, and it concerns the fact that this is the Twentieth Annual Meeting, which should remind us that we are no longer in our teens. It seemed to me that it would be appropriate to review a few highlights in the growth and development of our Association, especially of the work which we are doing.

After World War No. 1 the idea of organizing the textile chemists and dyers of the United States had occurred to several men. The AMERICAN DYESTUFF REPORTER had been in existence a number of years to report on the availability of dyes because that was a pressing problem of the time. With the encouragement of A. P. Howes, the publisher of the AMERICAN DYESTUFF REPORTER, Dr. Olney called a meeting at the Engineers Club in Boston in the summer of 1921 at which about a dozen men discussed the formation of some kind of society. It was decided there that a larger meeting would be held here in New York during the Chemical Exposition early in September of 1921.

At this New York meeting Dr. Olney was elected Chairman and he was empowered to appoint committees which should draw up plans for permanent organization. Some of the men of those committees are here tonight. Others have since passed to their reward. I thought it would be interesting to read their names since there are not so many. They were: Louis A. Olney, Walter E. Hadley, William D. Livermore, George A. Moran, Walter M. Scott, William R. Moorhouse, Robert E. Rose, William H. Cady, Frederic Dannerth, A. E. Hirst, Winthrop C. Durfee, Russell W. Hook, Walter S. Williams, Harry R. Davies, Warren H. Whitehill, John F. Bannon, Hugh Christison, Harold W. Leitch, Elmer C. Bertolet, E. H. Killheffer and Frank C. Holden.

These committeemen immediately got busy and by November 3rd, 1921, were called together by Dr. Olney at the Engineers Club in Boston to organize formally and to begin the life of the Association. Invitations had been sent to all those the committee could think of at the time who were prominent in the industry. There were 225 acceptances of charter membership, and 140 attended the first meeting. This was a very high proportion of attendance which we have approached ever since. I venture to say that very few societies can boast an equal record.

The actual organization of the Association was embodied in a motion made by the late W. C. Durfee that "those present and those who have already signed the application to be charter members of such an association hereby organize themselves into the American Association of Textile Chemists and Colorists." The tentative constitution and By-Laws prepared by Mr. Livermore's committee were adopted and then the first officers were

elected. These were the following: Louis A. Olney, president; William Cady and Mr. Livermore, vice-presidents; Walter C. Hadley, secretary; Walter C. Durfee, treasurer; Mr. Amsden, W. C. Scott, William K. Robbins, George Moran, Elmer Bertolet, and Arthur Hirst, councillors.

Mr. Howes, who had previously urged the formation of an American society, then offered to publish the proceedings in the AMERICAN DYESTUFF REPORTER free of charge. This offer was accepted at this first meeting and ever since the arrangement has been continued with advantage to us. We have had a place for our proceedings without the responsibility of financial and editorial management.

The large meeting of 120 charter members adjourned at the end of the afternoon on that November 3rd and at 7:45 P. M. the Council and officers reconvened. The custom of having technical papers at annual meetings was established then and there, although the paper was only read by title because of the lack of time. This first paper was entitled, "Differential Reduction of Vat Dyes," and had been prepared by Wallace J. Murray of Arthur D. Little, Inc.

The first Council meeting was held on November 18th, about two weeks after the First Annual Meeting, again at the Engineers Club in Boston. At this first meeting of the Council the Research Committee was organized, and consisted of the Council and National Officers plus three other charter members: namely, Dr. Robert E. Rose, Ed F. Lotte, and Dr. W. J. Murray. It is significant, I think, that the work of the Research Committee was started so early, really at the very beginning of our history. Let us hope that those who follow us in the affairs of the Association will never forget the appreciation of research shown by our founders.

It was planned that the personnel of the Research Committee was to include all branches of textile chemistry and textile coloring as related to cotton, wool and silk, and also the technical side of the dyestuff industry and general research work. You will especially notice in these early plans no mention of the fibers which were to come later, such as rayon, acetate, nylon, casein fiber, and Vinyon. Furthermore, as one goes over the old records he finds that silk was given an importance which it has since lost; in fact, in the first work of the Research Committee, wash fastness tests for silk were first in consideration.

The organization of the Association continued rapidly. A group in Providence under Mr. Cady was given the first charter as a Local Section, and by January 13th, 1922, petitions for local sections had been granted to Boston and New York. These founders of our Association apparently believed in getting busy at the tasks ahead of them right away. The Council met for its second meeting on December 9th, 1921, and on this same date the Research Committee held its first meeting. The research Committee immediately set up a very ambitious program, and as we look back now, we can see how well that program has been carried out.

Let us see what were considered the problems to be tackled in those days. They included the following: Methods of Analysis for Dyes and Chemicals; Testing Methods; Specifications for Products; Fastness Studies; Dye Nomenclature; Standards for Fastness to Washing, especially maximum and minimum standards for real silk; A bibliography of fastness tests and methods—especially to make available a report by the German Commission which described standards methods in Farben Zeitung for 1916.

Perhaps we can best visualize how this program of the original Research Committee and of the Association has been carried out by "looking at the record," as the politicians would say. The record in this case is the Year Book which each year contains a report of our achievements. Contrast this large book for 1939 with this small one for 1925. I wasn't able to get hold of the first Year Book but the contrast of this 1925 Year Book, which is very thin and small, with this thick one for 1939 is very striking. Of course, the material in the Year Book is accumulative, but we are continuing to add to it every year, now as much as we did in our early history.

The membership lists have grown from 225 charter members in 1921 to over 2,600 in 1940. The problem of dye nomenclature which was so serious in 1921 has been solved and all American-made dyes with their Colour Index numbers are so carefully listed under the able direction of Dr. Olney and Mr. Cady that dye nomenclature is no longer a problem.

Test methods for chemicals take up a considerable portion of the book. In 1933 I had the honor of inaugurating a list of textile chemical specialties, and that list has grown from 120 entries to over 400. Many methods for testing fastness properties have been established and are carefully given in the book. These methods are now accepted by other associations and especially by the government, and become especially important in equipping an army in these trying times. I need not go on because you know the record. But the more we do, it seems, the more there is to be done. Under the able leadership of Dr. Olney who has always headed the Research Committee from the beginning and now with the assistance of Mr. Ryberg, our Associate Director of Research, the work goes on. I am sure that our place in the American textile industry is very firmly established and that we who have the present responsibility of carrying out the program laid down by that original Research Committee will not only continue the work which has already gone beyond their original conceptions but that we shall also carry the work of the Research Committee beyond even our present conceptions.

I now want to pay a tribute to those who have arranged this convention. The Committee has done a great deal of work. They have been working months to carry out all the details which perhaps don't impress us particularly, but

which are so important in making everything run smoothly. Particular credit goes to the General Chairman, Mr. Pat Kennedy, and to his Assistant Chairman, Mr. Henry Herrmann. (Applause.) Dr. Walter Scott arranged the technical program, and I think all are convinced that this time we have had the finest and the largest technical program we have ever had.

PRESENTATION OF PAST PRESIDENT'S PEN

I now have a great pleasure. I have here a pin which it has become a custom to give to the Past Presidents. At our meeting in Atlanta we gave out several pins. Now I have the pleasure of giving this to our last Past President, who served for two terms and who has done so much for the Association, especially in the development of research, Mr. Alban Eavenson. (Applause.)

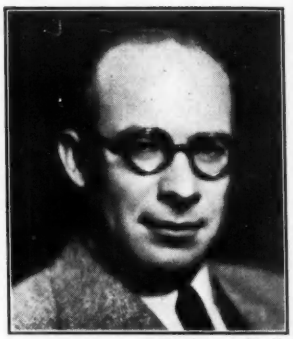
Mr. Alban Eavenson: Mr. President and Members of the Association: I cannot accept this pin without expressing to you my pride and satisfaction. During my tenture of office I cannot do any pointing with pride to any outstanding service, but I do wish you all to feel that I am proud to have my name associated with that splendid group of Past Presidents of which your genial Toastmaster here is a shining example.

I thank you. (Applause.)

Toastmaster Killheffer: Apropos of nothing at all I wonder how many of you noticed in this evening's paper the case of attempted suicide that came into one of the city courts. A man was brought in in a considerably battered condition. It seemed that he had fallen or jumped out of the fourth or fifth story window of some apartment house. The judge after hearing the charge of attempted suicide asked him what was the reason for it. He said, "Well, a woman lied to me. She told me her husband was in Chicago."

Our first guest speaker is a very distinguished gentleman. Born in Hickory, North Carolina, Dr. Murchison, after leaving Wake Forest, took a number of degrees at Columbia University. From there he went into United States Government service as Director of the Bureau of Foreign and Domestic Commerce of the Department of Commerce. Later he became President of the Cotton Textile Institute, a position which he still occupies. Dr. Murchison is to speak to us on the subject of "Research on Cotton."

It is my great pleasure to introduce to you Dr. Claudius Temple Murchison! (Applause.)



Blackstone Studios

DR. C. T. MURCHISON

Research on Cotton*

DR. CLAUDIUS T. MURCHISON**

MR. Toastmaster, Ladies and Gentlemen: As a representative of cotton I appreciate very much the privilege of participating in this Twentieth Annual Convention of your organization. Those of us who are concerned primarily with the manufacturing and distributing of textiles know your Association is the outstanding group of technicians in the industry, and we are conscious of our reliance upon your organization as such and its individual members for the creation, the development, and the perfection of the colorings and finishes and other essential elements in the production of our own fabrics, those things that give to them the style, the utility, the durability, the many other appeals that produce consumer acceptance and are absolutely essential to the expansion of cotton consumption in the United States.

I am also very conscious that this group includes the Faradays, the Edisons and the Ketterings on some of the essential phases of textile production, and I salute you for your achievements and assure you of our deep interest in your future work and our feeling of dependence upon you. As I sat here tonight with Dr. Olney looking over the sea of faces which you altogether represent, the thought occurred to me that probably in the United States today no organization brings together so large a gathering of scientifically trained men actually engaged in the applications of science to industry. It is a thought worth contemplating and a fact of which you should be very proud, that out of this close group association which you have and which functions so seriously and so effectively, you can develop a feeling of challenge toward any problem that could possibly come up. How could American industry be regarded as static when it has at its service so great a mentality? And how could the cotton textile industry which many of us, I am sure, in the past have been disposed to think had reached the top of its progress, fail to

*Address delivered at annual banquet, twentieth annual meeting, New York, N. Y., October 19, 1940.

**President, Cotton Textile Institute, Inc.

advance, and advance spectacularly in the days that lie ahead?

It is worth noting here that under prevailing world conditions the contrast that now exists as regards our supplies of dyestuffs and other chemicals in relation to the dilemma that confronted us during the World War No. 1 is quite evident. At that time our American textile mills were almost wholly dependent upon foreign sources for many of their dyeing and chemical materials, and almost entirely for the finished product. In the intervening time, within the active business life of practically everyone in this room, you men and your associates have built up a domestic industry that is virtually self-reliant and self-contained, banishing forever the degree of uncertainty that formerly prevailed. This is but one chapter in the contributions you have made and are making to the dramatic and romantic story of American business and commerce.

It is on the subject of research in cotton that I have come to speak to you, believing that as technicians in textiles you are interested in research. The subject matter of these sessions and the character of the discussion of these sessions which you have had during the two days just elapsed prove the high quality of your research interest. I have a certain knowledge that your skill and ingenuity and technique are essential to the successful prosecution of our joint activities to make cotton greater in its glory than it has ever been in the past.

Research in cotton is of course a matter on which I am not at all competent to speak in technical terms, but no one could be more conscious than I of the pressing need for research on this fiber and its products, and I am glad to have the opportunity to describe to you some efforts that decidedly call for the best of research. Cotton is vital to everyone connected with the industry. It is the life-blood of agriculture in the South. Through many other industries in the nation it provides a livelihood, directly or indirectly, for more than 10,000,000 people. This great force in American life and trade faces today a crisis which we believe can be relieved only by research and its handmaiden, promotion.

The cotton farmers of the United States are now looking forward to a harvest as estimated by the Department of Agriculture at 12,700,000 bales. Already burdened with a cotton surplus of substantially 9,000,000 bales, we shall probably add to it this year another 3,000,000. The totalitarian economic policies of self-sufficiency, the blockade of the European continent, have combined with other factors, certainly temporarily, perhaps permanently, to shrink the world market for American cotton. It now appears futile to hope for exports in excess of 1,500,000 bales for the coming crop year, and the likelihood is even greater for an export trade not exceeding 1,000,000 bales, as compared with a customary export ranging from six to eight million bales per year, or more than half the total domestic production.

With this as a prospect we face two alternatives: the further curtailment of cotton acreage, a desperate alternative which none of us love to face. It would necessitate further heavy compensation payments to farmers from the Federal Treasury, already heavily overburdened. It would create further enlargement of agricultural unemployment and diminish the business of all the agencies directly or indirectly dependent upon cotton, weaken the entire economy of the South, with adverse effects upon every section of the country.

The second and far more appealing alternative, the one which would add to and not detract from the national prosperity, is the expansion of cotton consumption within the United States to 10,000,000 bales annually, an increase of, roughly, 2,000,000 bales from the current anticipated consumption, which is essential to offset even in some substantial degree the loss of export trade and make possible the continuation of American cotton economy on the present scale. Unless that figure can be reached we have no reasonable hope of reducing for many years to come the enormous cotton surplus already in existence, owned outright by the Government or held in the Government loan stocks, and representing an investment of public funds approximating $700,000,000.

Obviously, this goal of 10,000,000 bales consumption cannot be accomplished overnight, but in my opinion it can be done within a period of three years. This judgment is based upon a careful study of all the visible elements in the present situation, and upon the possibilities of a program of cotton promotion now being organized and already under way, which will harness into concerted and effective action all of the agencies of the United States which would logically support such a program, and extending all the way from the raw cotton interests to the retail merchandising units.

I will not burden you with details of this program, which I hope will become familiar to you in the months which lie ahead, because you will see it in operation all about you. But I refer to it to indicate the task which confronts this industry and which is being undertaken collectively, also, to express to you the full recognition of those who are engaged in the manufacturing and distributing field of the textile industry, of our reliance upon your help and our appreciation of the useful and necessary contributions which your organization and its members are making to the successful conclusion of this program.

I am fully aware that your interests are broader than the limitations of the production of one fiber alone, and while we have felt the effects of competition from synthetic fibers in the realm of textiles, I have no resentment for that progress, but rather stand in admiration of the amazing success which they have achieved. Furthermore, I feel that we who deal with the natural fibers may well take note of the fact that these newer members of the family were conceived, nurtured and perfected largely in the research laboratories.

We know that research can open untapped channels of opportunity. We are thoroughly cognizant of what you gentlemen can do along this line. A mere listing of the accomplishments you have already achieved would merely call the roll of contributions which have given to cotton products wider uses, greater appeal, broader acceptance, all the way from increasing manifold the durability and serviceability of industrial fabrics to adding to the fascination and attractiveness of Milady's dinner gowns.

Permanent finishes which increase the tensile strength of our fabrics and add brilliancy of color, anti-crease finishes, water-repellent finishes, fire-resistant and water-resistant finishes, treatments that prevent mildew and mold, Sanforizing, which has solved the problem of shrinkage, fast dyes—these and many other items show the accomplishment which has been made, and indicate the possible great advances which lie ahead.

So those of us who are charged with the program of increased cotton consumption are aware that through your research must come our main strength and progress. We will carry forward, strengthened by the knowledge that the technicians can make such vital contributions. And I conceive of the great undertaking which we have before us, to enlarge cotton consumption, as consisting to a very great degree of the ability to establish a close merchandising relationship to the technical contributions which you can make in the laboratory and in the factory. And without bringing those two things together the time lag between technical achievement and popular acceptance can never be reduced.

The bulk of the earlier efforts have been devoted to improvement of mechanical processes such as carding and spinning and weaving. In addition, new chemical processes I have mentioned for producing special effects are constantly being introduced so it is now possible to alter the water-resisting properties, the hand, the general appearance of the finished fabrics.

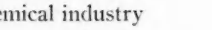
Most of these types of development have resulted from the efforts of allied industries such as the chemical industry and the machine builders. There was little need in the earlier days for the cotton manufacturers to do anything but fabricate the material. But as the demands for new types of fabrics increased and as the specifications became harder to meet, and as competition from other types of fibers increased, it became necessary for the manufacturers to do more than just fabricate cotton material. It became necessary to undertake definite control and development of research programs.

Unfortunately, it was more or less general procedure to take cotton as a raw material for granted and not to worry about it until it reached the first machine in processing, a perfectly natural procedure since cotton as it occurs in nature is a highly developed fiber. But many manufacturers now realize that they are not utilizing all of the potential attributes of the cotton fiber, largely for the reason that not enough is known about the physical and chemical properties of the raw material. But they are rapidly taking steps to remedy this situation, and many of the leading mills are setting up excellent laboratories which are not only well manned with highly trained chemists and physicists and engineers, but also well equipped with the best types of physical and chemical testing equipment.

A part of the effort is devoted to better control in manufacturing processes, but increasing effort is being put forth in producing specially desired properties, a type of work heretofore left entirely to the chemical industry.

Finally, a considerable amount of cotton research is now being supported and encouraged either directly or indirectly by the industry in many universities, such as the Mellon Institute, the Textile Foundation's program, the Bureau of Standards in Washington, the University of North Carolina, the Georgia School of Technology—and any number of others which I might mention. And as a result of all these efforts, which are gaining headway, many branches of the cotton industry are rapidly approaching a state of technical development which was thought impossible a few short years ago.

So we hope that you will continue the excellent work which you have already well initiated. We felicitate you upon the accomplishments of the past. We want to cooperate with you in the development of further standards, standards of method of testing, standards of characteristics such as color fastness; for this industry needs what you can contribute along those lines. And when you have helped us to produce a more perfect product with all of the technical refinements which science can possibly bring to it, then we promise you in return that the industry, all the way from the spinner to the converters and distributing agencies, will give you every possible cooperation in seeing that the American public as consumers have the benefit of the best merchandising which we can possibly have in making the product available to them. (Applause.)



Toastmaster Killheffer: Dr. Murchison: Your words of commendation for the work of the Association are very deeply appreciated, especially coming from you as president of the Cotton Textile Institute. They have a very deep meaning which I am sure is lost on none of our membership. We look to men such as yourself for the kind of encouragement that you have offered, and we hope for your continued interest and cooperation.

I see the "Senator" over here on my right growing rather restive, so I think without much further ado I will give you "Senator" Ford from Michigan, but not from Detroit.

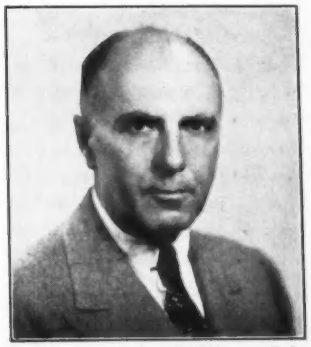
"Senator" Ford! (Applause.)

. . . "Senator" Ford then addressed the audience in a humorous vein . . . (Laughter and applause.)

Our second guest speaker is Mr. H. L. Derby who is

to speak to us on the subject, "The Chemical Industry's Role in Preparedness," Mr. Derby is well qualified to discuss this subject. He is, as most of you know, president of the American Cyanamid & Chemical Corp. He is, incidentally, president and vice-president, and holds other offices in a number of other corporations. He is a life member of the Board of Directors of the National Association of Manufacturers. He was for fifteen years chairman of its Tariff Committee.

He has had as a result of these connections ample opportunity to qualify himself to address us to our great profit on the subject assigned to him, and it is my very great pleasure to introduce to you Mr. H. L. Derby. Mr. Derby! (Applause.)



H. L. DERBY *Delar*

The Chemical Industry's Role in

Preparedness*

HARRY L. DERBY**

MR. TOASTMASTER, Members of the American Association of Textile Colorists and Chemists, and Guests:

I have been asked to speak on the subject "The Chemical Industry's Role in Preparedness." In doing so, I assume you will wish me to include the broad aspects of the problems of preparedness—the influence of the political, economic and social factors.

The collapse of France, perhaps more than any other event of this past decade of world-wide aggression, has awakened America to the imperative need for preparedness. America has the facilities to produce all the necessary safeguards against physical invasion and the will to guard against the infiltration of the foreign "isms" that are directly opposed to the methods that have been employed by our people. These facilities have made possible our achievement of the highest standard of living known to civilization, and fundamental to our methods has been private enterprise and personal liberty.

We seek the territory of no other country, and our armament program has defense for its sole purpose. I do not believe that there is a man within hearing of my voice who believes there is profit to be made from war. Any temporary financial gains that could result from war would be quickly wiped out by the losses resulting from war. American industry condemns war and wants no part of it. The results cannot be other than human, economic and spiritual destruction. To avoid war, we must prepare ourselves to the extent that no dictator will have the temerity to challenge our right to freedom. And with this in mind, American industry is cooperating wholeheartedly in the present "defense program."

The functions of the chemical industry in the national preparedness program are well understood by you. Without chemical products available in adequate quantity no effective defense program would be possible. The products of the chemical industry are needed for every basic industry, and every article of commerce, directly or indirectly, requires in its manufacture one or more chemical products.

At the beginning of 1914, there was invested in the chemical industry of the United States 369 million dollars, and the annual business totalled 261 million dollars. And there is now invested over two billion dollars and the annual business is one billion 250 million dollars.

In 1914 there were 47,681 employees—today there are 150,000.

Federal corporate taxes on the industry in 1914 were about three million dollars. In 1937 the industry paid over 56 million in Federal corporate taxes.

Furthermore, the industry now spends over 35 million dollars annually for research, and even larger amounts in the development of new products.

It is needless to tell this audience of the difficulties encountered at the beginning of 1914 by manufacturers of textiles and other products in obtaining colors and chemicals. They were not immediately to be had, and those imported were available only at fantastic prices. Today, that picture is changed and our own chemical industry ranks with the greatest in the world.

For the purpose of surveying the chemical industry's facilities for the national defense program, an Advisory Committee was created by the War Department over a year ago. The chemical industry is far ahead of many other essential industries in its capacity for production and if necessary, can provide increased facilities in a relatively short time. So far as the defense program is concerned this industry is ready and can be depended upon to meet

*Presented at annual banquet, New York, N. Y., October 19, 1940.

**President, American Cyanamid & Chemical Corp.

the requirements of other essential industries. Plants engaged in the manufacture of explosives, textile mills, steel mills, oil refineries, and hundreds of other vital manufacturing plants will find their source of chemicals available.

Medicines and other essentials for the preservation of health have been developed, and there are sufficient production facilities for increased need of these products.

However reassuring these facts may be of the physical preparedness of the chemical industry, we cannot escape the simple truth that our country is generally unprepared for a war such as is being fought in Europe today. Our nation, founded on the principles of representative democracy, abhors war, and desiring no territorial expansion becomes the more easy prey to conditions thrust upon it from abroad by power-crazed totalitarian rulers. Preparedness today means more than merely having an army of men. It means having a sound economic structure and a united people to provide an impregnable mechanized defense force. We have seen nations, apparently strong, devasted by war in a few short weeks. France, thought to have the finest army in the world, was overrun with almost no opposition. Her people did not realize to what an extent the infiltration of Communism and Nazism had rendered her powerless. She was lulled into a sense of security in the belief that she had three years' store of ammunition and that the Maginot Line could not be penetrated. At the end of a few weeks her ammunition was gone and the Maginot Line had fallen to a mobile offensive war machine.

We, the people of these United States, are face to face today with a problem more important than that of raising an army of men. That problem is to decide what kind of a country we want, and that decision, under our representative democratic form of government, rests with us as free individuals. Our democratic freedom has been well said to be founded on a tripod—a tripod of freedom. Its three legs are representative democracy, civil and religious liberties, and the institution of free private enterprise. History has proved that they are inseparable. When one goes, all go. Underlying them all is the sacredness of the individual—his right to participate in government; his right to worship as he chooses, to read, to think, to write and speak as his conscience directs; and his right to the fruits of his efforts in economic enterprise. Freedom alone has provided American citizens with a world-envied standard of living, and only in a free society will that standard continue to advance.

Unfortunately, it becomes increasingly evident that a very large percentage of our population is uninformed as to the inroads being made on these American rights. Increasingly it becomes the obligation of every American to understand the American Way in order that our freedom can be protected against the attacks being made against it.

Do we want to surrender the rights for which our forefathers fought and died?

Do we want to concentrate in one person, or in a small group of persons, complete and uncontrolled authority over our lives?

Do we want a government patterned on Fascist lines, or one operated on a Nazi formula?

Do we want to try Russia's experiment, and allow Communism to regiment our activities?

Or, do we want a government that protects the principles of liberty and the fundamental rights which our forebears won for us in the struggle 164 years ago?

Of all the "isms" to which our Democracy is exposed, the most insidious and the one that is making the greatest strides is Communism. Communism is defeatism. It is the "ism" which, like the termite, bores from within, leaving the outward appearance of strength and solidity, but eventually causing collapse and disaster.

Communism feeds on ignorance, and its alluring prospects to the uninformed masses blind them to its real intent. Discouragement and class hatred are its chief assets. Propaganda, half-statements, and false statements are its weapons; and the denial of the power of God is its culminating arrogance. Its proponents and workers hide behind the cloak of respectability through membership in organizations with innocent or patriotic sounding names, but whose real purpose is the propagation of Communism. Communism can only be detected and eradicated by unrelenting vigilance.

Communism represents the direct antithesis of Americanism. It stands opposed to God, to human liberty, and to the rights of personal reward. It is one of the most dangerous parts of the Fifth Column that has shown its ugly head in the European struggle.

In place of the American system of free enterprise, Communism operates under a planned economy, which can exist only under a dictatorship. A dictatorship arises from the surrender of freedom and the concentration of power in the hands of a single individual.

The present European war has brought most democracies under the heel of Communism, Fascism, and Nazism. Today this nation stands almost alone as the bulwark of human freedom. And, let us ever keep before us the fact that this nation rose to its present heights on the foundation of representative democracy, civil and religious liberties and the institution of free private enterprise.

When we talk of the system of private enterprise, what do we mean? Under this system we have achieved a standard of living and created production facilities unmatched by any other nation. Over 14 million families live in homes that they own. There are 45 million savings accounts and 50 million insurance policies on the lives of our people. With only 6 per cent of the world's acreage and only 7 per cent of the world's population, we have one-third of the world's railways and over one-third of its electrical energy. We produce over two-thirds of the world's automobiles. Our system of public education is the finest in the world and a larger percentage of our

people are given schooling than in any other country. Our system of free enterprise alone has created these things and has been responsible for their wide distribution.

One all important characteristic of our system of free private enterprise is under serious attack. That characteristic is the right of industry or business to a reasonable profit. It seems that people have forgotten that the position of the United States in the world today—its leadership in living standards and its outstanding dominance in mass production—is a direct result of the profit motive under our system of private enterprise.

Our people must be made to realize that in a free society if the profit motive is abolished progress would be a word soon forgotten. They must be made to realize that business and industry operate on the private savings of individuals who invest in enterprises with the hope that they will realize a profit and with the risk that they will take a loss.

Into the average job in manufacturing, it has recently been determined by an accurate survey, goes an initial expenditure by manufacturers of approximately $6,000 for the "tools" and equipment necessary to provide work for one man.

Without the "tools" no opportunity exists for the worker to find a job and before a job can be provided industry must first find those willing to supply the money to purchase the necessary tools. A community of interest exists among all those engaged in the operation. A laborer must receive his fair share for his efforts, and those supplying the money to buy the tools must have a reasonable compensation. During the last ten years those supplying the tools have failed to realize reasonable compensation for their risks. And even when reasonable compensation has been forthcoming, an ever increasing tax burden eats into the proceeds. The result of this has been the discouragement to investors to buy "tools" for workers and the subsequent result of this has been large unemployment.

The theorists and those who have no experience in manufacturing and selling goods urge upon us "planned economy." Do they really believe that a commission or a group of government bureaucrats could have "planned" the automobile, airplane, radio or television? Do they believe that our high living standard could have been arrived at through such a program? Planned economy has been put into effect in Germany, Italy and Russia. Would they be satisfied with the results achieved in those countries?

Every attack on private enterprise is a direct attack on the individual—on his freedom and his opportunities. When the foreign "isms" attack our free enterprise system, they attack the welfare of all our citizens. Millions of men and women hold an interest in our free enterprise system in the form of stocks and bonds, and, indirectly, in the form of savings bank deposits and insurance policies. The resources securing the savings bank deposits and insurance policies are the funds invested largely in private enterprise, and the security of those deposits and policies depends on the success of free enterprise.

Let us take a simple illustration of the far reaching effects of the operation of an industry in a given community. Let us see what a plant employing 150 men means to a community. It supports 33 retail stores with annual sales of $500,000; it supports a 22-room school with 18 teachers; the employees in the factory and their families require the services of 24 professional men—doctors, lawyers, dentists and so forth; the turnover of that factory payroll means 320 automobiles in the town, with all the attendant garage and filling station services; and this one single plant creates a market for the products of 6,600 acres of farm land and provides $53,000 annual revenue for the railroads. Directly or indirectly, 1,650 people in that community depend upon that single factory employing 150 men.

Now, if such an enterprise is stifled by oppressive laws and government competition, or if its operation becomes unprofitable through these causes or by confiscatory taxes, or if the supplier of tools lacks confidence that his rights will be preserved, the loss falls on all—the laborer, the business man, the farmer, the professional man or woman.

Affecting the operation of free enterprise in relation to the preparedness program, we have, among other laws, the National Labor Relations Act and the Wage and Hour Law.

The principle of collective bargaining is accepted by most employers as just and proper, though there are provisions of the National Labor Relations Act which should be changed. The administration of the Act leaves much to be desired.

In connection with the preparedness program, the hazards of sabotage in key industries creates a situation which so far has not been reckoned with. The law provides that an employer who spies on labor is guilty of an unfair labor practice. To employ detectives who can watch the Fifth Columnists and saboteurs becomes impossible without the danger of being accused of unfair labor practices.

If accused and held guilty by the Labor Board, such an employer, in the informal opinion given by Attorney General Jackson, would be disqualified from having any government contract. Since his original opinion the Attorney General has seen fit to hedge the meaning of his statement. There are upwards of 1,100 concerns, some great corporations, who are actively engaged in producing essential war materials, that are affected by this decision of the Attorney General. What the outcome will be remains a question. Many of these companies have been held guilty of unfair labor practice by the Labor Board, but have taken appeal of the Labor Board's decision to the courts. At present there are upward of 200 firms against which Labor Board charges are pending. Unless reversed, this opinion of the Attorney General will create a very serious interference with the preparedness program.

The Wage and Hour Law, fixing a ceiling of forty hours per week, is a further deterrent to our preparedness program. Employers of labor who contract with the government to produce essential materials at border-line prices may find themselves unable to pay the time and one-half for necessary overtime to carry out their contracts within the specified time. By way of contrast, Italy, some months ago, increased its number of hours from 40 to 57 per week; and Russia increased its work week from five to six days, and Germany has practically removed its limits.

It is to be hoped that nothing will so interfere with the preparedness program as to nullify the tremendous effort being made by industry. This preparedness program is being undertaken after ten years of business depression. To achieve recovery from that depression involves the fundamental necessity that we adhere to our original concepts of the democratic way of life. Such a recovery will act as its own buttress against encroachments both from within and without.

Briefly stated, industry's program for recovery as laid down by the National Association of Manufacturers is as follows:

(1) It calls for conditions propitious for a larger and more dependable flow of capital into the expansion and modernization of industries and for new industries, as the only sound means of increasing purchasing power. And this takes on particular significance in the light of defense expansion requirements.

(2) It implies self-betterment of industry, with full acceptance of management of its share of social responsibility.

(3) It admits the desirability of sound governmental regulation, as distinguished from control.

(4) It calls for good labor relations, safeguarded—not impeded—by law, and the necessary changes in the National Labor Relations Act to bring this about.

(5) It asks a thorough analysis and adjustment of taxes and urges the distribution of the burden of necessary taxation in such a way that there will be the least slowing down and discouragement of private enterprise and in a manner that our vital productive facilities will be maintained.

Our task is to preserve the fundamental soundness of our country and its institutions. With economic understanding, backed by the irresistible force of unity of purpose, virtually no goal is too ambitious for us to seek. Understanding of what industry and the free enterprise system means to everyone of us is essential. Recognizing this, business men should endeavor to explain the significance of private enterprise, and no opportunity should be missed to broaden the appreciation and understanding of the importance of free enterprise as one of the inseparable foundations of personal freedom.

And we cannot ignore the inevitable aftermath of the chaotic world conditions. The important factor of tariff must not be overlooked. The progress of industry and the development of our farms over the past generations have been encouraged and protected by the levy of duties on goods imported from foreign countries.

During the last four years that tariff protection has largely been destroyed by so-called trade agreements with foreign countries which have reduced the duties on over a thousand products grown and produced in this country.

I hold no brief for a tariff excessively high or one guaranteeing unfair profits, but I challenge anyone to prove unsound the reasoning that if the high standards of American labor are to be maintained our domestic market must be protected from low foreign labor rates and foreign subsidies by a tariff which equalizes the difference in cost of production abroad and at home. Nor can I see any good reason why our Government should give foreign producers the right to sell in the American market at prices with which the American producers cannot compete.

When tariff protection equalizing low foreign labor rates and foreign government subsidies is removed, there can be no other result than a reduction of our American standards of living to the foreign level.

When reason reasserts itself in the world and conditions become more normal, make no mistake, American labor, agriculture, and business will find themselves confronted with new conditions brought about by these tariff reductions.

Now, I admit that all this may not be a bright prospect, and I realize that the easiest way to dispose of the subject is to blame our difficulties on the Government and sit back and wait for a more pleasant period in our history; but, unfortunately, the years do not stand still and with the passage of time come still further changes, be they for good or evil. Therefore, we come to the question, *"What are we going to do about it?"*

After all, America's destiny is every American citizen's responsibility—in one degree or another—if he is to discharge his obligations.

Are we to declare that representative democracy, as a form of government is a failure?

Are we to admit that we have not the same determination to preserve and improve our American standards as had our forefathers (who, I am sure from reading history, encountered even greater difficulties than those besetting our paths)? Or, are we frankly and honestly to face the facts and recognize our own responsibilities?

Manufacturing industry has been charged, whether justly or unjustly, with much of the responsibility for the depression of the last ten years. It has been argued by the uninformed that industry should re-employ some ten or eleven million idle, but they overlook the fact that at the peak of industrial employment in 1929 there were less than 11 million men employed in our factories.

I believe that our local, state and federal representatives usually act as they believe their constituents wish them to act. On the whole, I think they very well reflect mass

public opinion. The formation of public opinion, unfortunately, is often accomplished through the dissemination of incorrect information or misleading propaganda.

Wherein lies the responsibility of those who, like ourselves, are engaged in industrial enterprise? We have the knowledge and facilities for placing the facts before our political representatives, our associates and our acquaintances. This is one responsibility on the shoulders of every citizen.

But, have we acquainted our representatives in government with the facts which we have in our possession and which deal with the subject of business progress? Until we have done so, we have not discharged our responsibilities to our businesses or to our nation.

I wonder how many of us here tonight know the names of our public servants. How many of us are acquainted with the members of our City Councils, our Aldermen and other City Fathers? How many of us know the County Officers and the tax authorities of our city and county? How many of us know the names of our Assemblymen, State Senators, our Congressmen and United States Senators; and to what extent have we contributed our ideas and such information as we have for the guidance of these political representatives?

When we go to the polls, I wonder how many of us (even when voting in a local election) take the trouble to inquire into the background, dependability and ability of those from whom we cast our ballot? If we have not done these things, then we have not discharged our full obligations as Americans.

I feel that we business men have more responsibility as to government than have some others because we have greater opportunity to study the problems of government and the effect of various influences upon business, and if we fail in respect to this important obligation, we have little cause to blame anyone but ourselves for the results.

I believe in our form of government. I believe in our institutions. I believe in the honesty of our people and that of our political representatives. I believe we can continue to progress.

Witness:

In our history, wages have increased 400 per cent.

We spend three billion dollars annually on education.

We have invested 11 billion dollars in schools and universities. 4 billion in churches.

Throughout the life of our nation we have made continual progress; working hours in industry have declined while our living standards have improved.

As gloomy as the present picture seems to be I have faith in our destiny as a free people. It takes time for facts to reach the mass of people. Perhaps it is too early to expect the majority of our population to be aroused to the hazards of our present course. When they realize the full significance of present events, I believe they may be depended upon to assert their convictions.

Yes, America is facing difficult times. Have we the courage, the energy, the resourcefulness, to meet and successfully encompass the difficulties? Are we, that is, each of us, willing to make the personal sacrifices necessary to preserve our traditions? Have we the unshakeable belief in ourselves and in our country? Ours is the responsibility!

We are Americans, we are proud of our Country. God grant that we may have the strength and resolve to preserve our freedom.

(Applause.)

Toastmaster Killheffer: Before some of you leave the room the president has asked us to make an announcement that he neglected to make, which is that the next Annual Meeting of the Association is to be held at Pinehurst, North Carolina, about this time next year. (Applause.)

The salesmen here may be interested in the experience of one of their number. A salesman had a very good day's sale one day and felt the urge to buy a present for his sweetheart. So he went into a store and said he was feeling pretty good and would like to buy something to take home to his sweetheart. The saleslady asked him if he would like to have something of a rather personal nature. He said, yes, he thought he would.

She said, "Some underthings?"

He said, well, he didn't know about that, exactly.

She said, "How about a very nice brassiere?"

Well, he thought that would be very suitable indeed. He said he had about $25 and he would like to get a good one.

The young lady said, "Well, if you are going to spend that much money, you should have the size."

So he said, "Do those things come in sizes?"

She said, "Yes. And if you are going to spend that much money I think you should find out what size."

He went out and sent a wire to his sweetheart. He said, "Had a wonderful day's sale. Want to bring you a present of a $25 brassiere. Please wire me the size."

He got back a return wire. It said, "Send me the $25. I am flat busted." (Laughter.)

Our next speaker this evening is a representative of the United States Army.

He was born in the West and starting in the National Guard of Nebraska, has advanced through various grades in the Army, and has been serving continuously in the Quartermaster Corps since 1932. He is at present the officer in charge of inspection, which includes technical direction of the procurement of textiles and clothing at the Philadelphia Quartermaster Depot.

We are very glad to have with us Lieutenant Colonel Painter, who will address us on the subject of "Woolen Textiles from the Army Viewpoint." (Applause.)

LT. COL. VERE PAINTER

Woolen Textiles from the

Army Viewpoint*

Lieut. Colonel VERE PAINTER**

I HAVE been detailed as a representative of the World's largest purchaser of textiles, The United States Army, to give you a report on the progress being made toward clothing the men that registered this week for training to protect your home and mine. We hear a great deal about the progress being made toward providing airplanes, tanks and guns, for the Army. Such items do take a long time to manufacture but, did you ever stop to think about how useless these items would be if we had them and did not have clothing for the men who were to handle them? Of course, the original Americans did some fairly good fighting dressed in their birthday clothes but we have become a bunch of softies since those days and we insist upon wearing clothes when we are fighting.

When a man is drafted and sent to a camp or when he voluntarily joins the Army, the first thing that must be provided for him is a hot meal, then clothing to protect him from the elements; blankets and other bedding must be provided for his comfort the first night in the Army, unless barracks are ready, tents must be immediately available. In order to have all these things available when needed it is obvious that we must start to purchase this equipment far enough in advance to permit of its being manufactured in an orderly manner and without disrupting civilian business any more than is necessary.

In some countries money is not as necessary for the conduct of a National Defense Program as it is in this Country, the Dictator can commandeer all available material, manufacturing facilities and personnel, and divert the product to Government use without doing more than providing the bare necessities of life for the people but, Thank God! we have not reached that state as yet. We do not desire to lower our standards of living, therefore, the Government still pays for what it wants and the Army cannot purchase textiles or convert textiles into clothing until Congress has provided the necessary funds.

Funds provided for the Army during the Fiscal Year 1940, which ended June 30th of this year, were all used early in the Fiscal Year. In June of this year the Army appropriation bill for the Fiscal Year 1941 was passed and funds became available. Prior to the actual passage of this Bill, Invitations for bids on 10,500,000 yards of wool textiles, 1,000,000 blankets and other clothing, were in the mail. Bids were opened a few days after the money became available and contracts were awarded. Now some people, both in and out of the Army, seem to think that the textile manufacturer merely waves a magic wand and the finished cloth begins to roll out of his plant. You, Gentlemen, know that this is not so.

The textile manufacturer, after being awarded a contract, must buy his wool, send it to a scouring plant with a prayer that he will get back as much clean wool as he has figured on; he then must have the wool converted into tops, have the tops dyed and blended with white; have the yarn spun, a sample piece approved for shade, then weave finish and ship the finished goods.

Believe it or not a minimum of five months is required to purchase wool cloth, have it made and turn it into shirts for soldiers and, when I say a minimum of five months, experience has proven that in order to meet this schedule conditions must be ideal.

Four months have elapsed since the first large orders for cloth were placed. Since then additional cloth and blankets have been purchased, raising the amount to 20,000,000 yards of woolens and worsteds, 30,000,000 yards of cottons, and 4,000,00 blankets. In addition to this another purchase is now being made of 17,000,000 yards of worsted fabrics.

Cloth is now being delivered to the Philadelphia Quartermaster Depot at the rate of more than a million yards per week. Contracts have been awarded for the manufacture of clothing and heavy deliveries will soon be coming in; however, the supply has not come up with the demand and until it does, there will continue to be a grand race to see whether clothing or the men arrive in camp first; I certainly hope clothing wins.

Some of you may be wondering what strings you have to pull or who you have to know in order to get some of this business. If you are interested, a penny postcard addressed to the Commanding Officer, Philadelphia Quartermaster Depot, will get your name placed upon the mailing list; you will then receive Invitations to Bid on the items in which you are interested.

*Presented at Annual Banquet, New York, N. Y., October 19, 1940.

**War Department, Quartermaster Depot, Philadelphia, Pa.

When ready to try for some of this business you submit your bid in the proper form. If, after bids are opened, you are low, you will be awarded a contract provided you are a legitimate manufacturer of the article bid upon. After you are awarded a contract it becomes my painful duty as Officer-in-Charge of Inspection, to see that you deliver exactly what Uncle Sam is paying for. There are no short cuts and do not let anyone tell you differently.

I have given you an outline of the progress that has been made during the past four months, now, let's get closer to home. I do not know of any single group of men that are more closely connected with the difficulties of textile purchasing than you, that are here tonight. I believe that it is safe to say that 90 per cent of our rejects are for shade and that the cause of 99 per cent of our shade difficulties is the lack of chemical control somewhere in the process of manufacturing the cloth.

The olive drab color used in the Army woolen and worsted materials is a blend of a brown, an olive, and a white. That is a fact that most of you know but I do not believe that many of you and, I am not accepting those of you that are in the dye business, know what colors are used in the mixture of dyestuffs that gives you the brown or the olive. Some years ago in our efforts to find a solution to our shade control problem, we requested a number of the large dye manufacturers to match a brown and an olive pad which we furnished them and to dye a skein of yarn with each color used in their mix, using the exact strength of the component dyestuffs. I have with me tonight the results of one of the large manufacturer's efforts along this line mounted on a card; this shows that in order to match the brown, the manufacturer had to use a pinch of orange, a dash of canary yellow, a drop of old rose, the same of Alice blue, a jigger of brown, and a bit of lavender. Now, who, of you, would have thought that those are the colors used in the fighting man's uniform. The same colors in different proportions were used in matching the olive. Any one of these colors may be lost entirely or changed so that you would not recognize it anywhere between the dye vat and the finish perch.

Now any dyer that is worth the money he is being paid can make a sample dyeing that is a very close match to the olive or the brown required; from this sample dyeing he can develop a formula for use on larger batches but, how many of them follow through and insist upon strict control of all factors affecting the final results. We have found dyers who were using a formula figured for a five hundred pound batch and due to difference in moisture content of the subsequent batches, were actually dyeing lots that contained from 517 to 579 pounds of dry wool. Furthermore, these dyers were not paying sufficient attention to such obvious control factors as heat, time, and acid concentration. Is it any wonder that they were having shade difficulties?

Let us assume for the time being that we have one of those rare individuals, the perfect dyer, and that we can find nothing to criticize in his department; we will also assume that the wool has been dried according to Hoyle, which is a good old Army phrase; the picker room is the next place in the woolen mill where the work of the perfect dyer may be upset; the overseer in the picker room is seldom a man with much technical knowledge and he usually performs his duties in a more or less rule of thumb manner. First, he must weigh out the various colors that are going into the blend but, does he worry about the possible difference in moisture content? No, he does not. He may take one batch of wool direct from the dryer containing very little moisture and another that contains its normal moisture and compute his quantities for the blending in the same manner per each. Usually these men are very particular about the method of laying the blend and feeding it to the picker; however, it is necessary to constantly watch this operation in order to prevent unsatisfactory results in the finished cloth.

Carding, Spinning, and Weaving, do not present much of a problem in shade control but the woolen finishing room is the battle ground of the mill. If the finished cloth is off-shade, the finisher blames the dyer and the dyer reciprocates. If a dye salesman should happen in during one of these arguments he would find himself very much in the middle and the finisher and dyer would probably forget their differences and both jump on the poor, innocent, dye salesman.

If we expect perfect shade matching of woolen goods, we must have perfect, mechanical and chemical, control of all operations in the finishing room. In the fulling mills, temperature, friction, moisture and composition of fulling mixture must be perfectly controlled or we may lose our dash of lavender or any one of the other delicate colors during this operation. Washing must be thoroughly done; carbonizing control must be super-perfect and all mechanical operations absolutely uniform.

If the dyer performs his job perfectly, if the overseer in the picker room does not go to sleep on the job, and if the finishing is under strict control, we may expect to get a perfect shade match, provided, the dye or other chemical manufacturer has not crossed us up somewhere along the line.

How do we ever get a satisfactory shade? The answer to that is, that we never do and we must permit a reasonable variation, of course, your idea of a reasonable variation and mine may be different.

A few years ago we made an effort to overcome some of our shade trouble by changing the color of our woolen uniform fabrics to a slate blue, which was a blend of black, navy blue, and pearl. The sole purpose of this proposed change was to make the job of shade control easier for the manufacturer and, therefore, more satisfactory to the Government. This proposed change was given an elaborate test an elaborate test but was finally disapproved for economical reasons beyond our control.

In developing the slate blue we came nearer to a solution of the shade control problem than any one ever has before. We had samples made, using as few different dyestuffs as we could and still obtained a desirable shade; we selected the most satisfactory blend which was 45 per cent navy blue, 20 per cent of black and 35 per cent of pearl; we obtained samples of the dyed stock used in making the sample piece and the dye formula used in dyeing each color; after obtaining this data we indicated the color index number of each dyestuff used, made a list of other dyestuffs with the same index number and indicated the manufacturer of each.

It was our intention that when a manufacturer received a contract for wool cloth we would give him a sample of the cloth desired; a sample of dyed stock, representing each color in the blend; the proportion of each color used in the blend; the dye formulas used in dyeing each color; the color index number of each dye used; a list of color equivalents and the name of the manufacturer of each. I do not know of much more that we could do for the manufacturer.

As I say, the slate blue went out as the emergency came in but we do have hopes of applying the same thing to shade control of olive drab eventually.

I have rambled along on the question of shade control until you and I both are getting tired of it and I do not want you to think that this is our only problem along your line; we have many others just as complicated and new problems arise every day, some of these problems are:

(a) The development of a suitable raincoat that can be produced in the quantities desired and in the time available;
(b) A permanent water-repellent finish for cotton goods that does not affect the strength of the fabric;
(c) A plastic suitable for use in making tropical helmets;
(d) A perfect, artificial light, for color matching;
(e) A method of preventing deterioration of cotton fabrics dyed with sulfur dye;
(f) A cheap and practical method of shrink-proofing wools. This method must be such that all mills could and would use it;
(g) A chemical treatment that will make a fabric both wind resistant and water-repellent without changing the other characteristics of the fabric..

If any of you have workable solutions of these problems, let's have them, may be your idea will help to win a War, who knows.

(Applause.)

Toastmaster Killheffer: As it is now very close to ten o'clock I think we better declare an adjournment and see if we can find amusement somewhere else.

Thank you for your very patient attention, and good night. (Applause.)

ONE HUNDRED AND TWENTY-NINTH COUNCIL MEETING

THE Council held its 129th meeting at the Hotel Commodore in New York, on Friday morning, October 18, 1940. Present were President Carl Z. Draves, presiding; Arthur R. Thompson, Jr., Vice-President; William R. Moorhouse, Treasurer; Louis A. Olney, Chairman of the Research Committee; William H. Cady, Alban Eavenson, Elvin H. Killheffer, Robert E. Rose, and P. J. Wood, Past Presidents; Kenneth H. Barnard and Walter M. Scott representing Northern New England; Frederic A. Prisley representing Rhode Island; Charles A. Seibert, William A. Stringfellow and Herbert S. Travis representing Philadelphia; A. Henry Gaede and Raphael E. Rupp representing Piedmont; Robert W. Philip representing Southeast; Virgil T. Hartquist representing Mid-West; and Harold C. Chapin, Secretary. The Secretary's report of the 128th Council meeting and balance sheet of Oct. 12, and the Treasurer's report of Oct. 16, were accepted. A report from the Treasurer of the Northern New England Section was approved. A report was received from the committee delegated to offer services of the Association to National Defense agencies.

Decision as to the exact time and place of the next General Meeting was left to the Piedmont Section, with the understanding that it would probably be in Pinehurst in October or November. The success of smaller committee meetings on Thursday, Oct. 17, led to the suggestion that the Thursday of General Meeting week be so used regularly in the future. It was voted that the next Council meeting be on Dec. 6 in Philadelphia, and that succeeding meetings approximate February in Boston, April in Washington, and final for the season in New York, on dates to be chosen by the executive officers.

Each of the following was elected to the class of membership specified, as of thirty days from publication of application, provided no objection be received meanwhile by the Secretary:

Senior

R. R. Ackley	M. C. Hunter	A. H. Peel
H. C. Bock	W. Hurtz	E. L. Phelps
J. L. Bryant	W. H. Jefferies	A. E. Poole
W. J. Clark	J. M. Jester	J. T. Poor
J. V. Cunningham	J. C. Kinahan	B. O. Race
F. A. Decker, Jr.	C. C. LeCompte	P. Sadtler
W. Dietz	J. R. Lunbeck	G. W. Seymour
J. W. Gilreath	F. Mayo	S. Simon
S. Grant	C. F. Miller	H. M. Waddle
C. A. Hess	R. T. Mills	T. Wareing
K. W. Heuser	O. M. Morgan	H. W. Wilkinson, Jr.
J. A. Hughes	E. A. Morris	
M. J. Hughes	J. Niewaroski	

Associate

E. H. Elliott	R. E. Henderson	L. Striar
K. M. Harms	W. C. McElroy	W. A. Welch
	G. C. Ollinger	

SECRETARY'S BALANCE SHEET, July 31 AND OCTOBER 12, 1940

	Applications	*Dues Regular and Reinstate.*	*Dues Corporate and Sustaining*	*Miscellaneous*	*Bank Charges*	*Totals*
Brought forward, and received by Secretary, Nov. 1, 1939, to June 18, 1940	$1,362.50	$8,240.54	$2,715.00	$996.66	—$5.27	$13,309.43
Received by Secretary, June 18 to July 31, 1940	117.50	18.50	5.00	133.69*		274.69
Total received	1,480.00	8,259.04	2,720.00	1,130.35	—5.27	13,584.12
Less bank charges				—5.27		
Net received by Secretary	1,480.00	8,259.04	2,720.00	1,125.00		13,584.12
Transmitted to Treasurer	1,362.50	8,240.54	2,715.00	996.66		13,314.70
Carried forward into fiscal year beginning August 1, 1940	117.50	18.50	5.00	128.42		269.42
Received by Secretary, Aug. 1 to Oct. 12, 1940	232.50	45.00		118.99**		396.49
Making total on Secretary's account, Oct. 12, 1940	350.00	63.50	5.00	247.41		665.91

MISCELLANEOUS	*	**			
Year Books	$35.00	$87.00	Dyed standards	11.00	1.00
Reporters	1.50	2.85	Launder-Ometer royalties	55.00	
Knitted tubing	20.00	19.43	Buttons	3.00	3.00
Crock cloth	8.19	5.71		$133.69	$118.99

Junior

G. M. Anderson	R. T. Haselton	H. S. Mannheimer
J. B. Bradley	W. H. Jaeger	H. A. Reehling
R. C. Bruck	H. B. Kime	W. E. Smith
K. J. Giese	E. L. Laxton	R. J. Ziegler
J. C. Gray	H. Liebmann	

Student

T. Bardzik	W. Malpino	J. J. Ryan
S. C. Koulas	A. H. Roberts	B. G. Skalkeas

E. J. Brittan, A. E. Jones, Jr., C. R. Phillips, and I. J. Royce were transferred from other classifications to Senior membership.

Respectfully submitted,

HAROLD C. CHAPIN, *Secretary.*

◆ ◆

A. A. T. C. C. TO SERVE ON A. S. A. ADVISORY COMMITTEE

THE American Association of Textile Chemists and Colorists which holds a membership in the American Standards Association, has been invited to serve on a committee of the ASA known as the Advisory Committee on Ultimate Consumer Goods. This invitation has been accepted and Dr. Louis A. Olney, Chairman of the Research Committee, has been appointed an official representative and Bertil A. Ryberg, the Associate Director of Research, his alternate. The Research Committee is preparing a list of standards and test methods developed by the various sub-committees for acceptance as American Standards by the ASA, under A. A. T. C. C. sponsorship. The acceptance of A. A. T. C. C. standards and test methods as American Standards, will be particularly appropriate in view of the increasing interest of Consumers in Informative Labeling, which to be of greatest value should be based on accepted standards.

MEETING, SOUTH CENTRAL SECTION

THE fall meeting of the South Central Section was held at the Read House in Chattanooga, Tennessee, on Saturday evening, November 9, 1940. Forty-five members and guests attended.

C. Harrell Asbury of the du Pont Company read a paper on hosiery dyeing. Interesting points were brought out on nylon and on the dyeing of khaki hose for the U. S. Government.

Eskel Nordell, Technical Department of the Permutit Company, presented a paper entitled, "Recent Advances in Water Treatment."

W. E. Hadley of Standard Coosa Thatcher Company reported on the National Convention which he attended in New York City.

William J. Kelly of Burkart-Schier Chemical Company showed several reels of technicolor movies, which he photographed at the New York World's Fair.

The annual election of officers was carried out at this time. The following were elected for the coming year:

F. L. Kibler, Chairman, United Hosiery Mill Corp., Chattanooga, Tennessee.

Jack Anderson, Vice-Chairman, Peerless Woolen Mills, Rossville, Georgia.

Frank F. Myers, Secretary, Geigy Company, Inc., Chattanooga, Tenn.

J. T. Bohannon, Treasurer, American Aniline Products, Inc., Chattanooga, Tenn.

The next meeting will be held around February 1, 1941, date and program to be announced later. M. W. Moore and J. H. McCall were appointed as Program Committee.

Respectfully submitted,

FRANK F. MYERS, *Secretary.*

MEMBERSHIP APPLICATIONS

Senior

Felix F. Axelrad—Chemist, Onyx Oil & Chemical Co., Jersey City, N. J. Sponsors: B. A. Uzenoff, C. D. Ehrengart.

William E. Coakley—Superintendent, Greenwich Bleachery, East Greenwich, R. I. Sponsors: H. V. King, R. R. Farwell.

William G. Chace—Instructor in Chemistry and Microbiology, Lowell Textile Institute, Lowell, Mass. Sponsors: L. A. Olney, J. H. Skinkle.

Earl W. Clark—Research Chemist, National Aniline & Chemical Co., Buffalo, N. Y. Sponsors: F. W. Gainey, H. F. Finlay.

Fred James Connell—Boss Dyer, Joan Plush Co., Woonsocket, R. I. Sponsors: H. V. King, A. R. Fletcher.

Robert N. Foster—Research Chemist, Monsanto Chemical Co., Anniston, Ala. Sponsors: A. R. Macormac, P. N. Collier.

John H. Graham—Salesman, Arnold Hoffman Co., Greenville, S. C. Sponsors: C. L. Eddy, H. E. Kiefer, Jr.

Alfred T. Grant—Textile Chemist, Pacific Mills, Worsted Div., Lawrence, Mass. Sponsors: J. N. Dalton, H. T. Rooney.

John Hintermaier—Textile Chemist, Forstmann Woolen Co., Passaic, N. J. Sponsors: W. von Bergen, E. H. Metzner.

Ferdinand Richard Jacobs—Colorist, General Dyestuff Corp., New York, N. Y. Sponsors: C. Z. Draves, L. Fusser.

Stephen Kende—Textile Printer and Finisher, H. W. Baker Linen Co., New York, N. Y. Sponsors: R. S. Lunt, E. W. Schmalenberger.

John H. Merscher—Chemical Engineer, Collins & Aikman Corp., Philadelphia, Pa. Sponsors: J. E. Conrad, W. R. Keen.

Arthur E. Pinkney—Chief Chemist, Crown Chemical Co., Ridgefield, N. J. Sponsors: L. J. Roos, E. M. Olson.

George B. Shoemaker—Dyehouse Manager, Downs Carpet Co., Philadelphia, Pa. Sponsors: R. M. Ritter, J. P. Conaway.

Colyar Sutton Tatum—Manager, Pilot Mills Co., Raleigh, N. C. Sponsors: J. W. Black, S. L. Hayes.

Perry G. Vlacos—Chemist in Charge of Textile Testing, W. S. Purdy Co., New York, N. Y. Sponsors: E. Freedman, M. Schuster.

Paul John Witte—Chief, Bureau of Standardization, Dept. of Purchase, City of New York. Sponsors: W. F. Prien, F. Krassner.

Edmund Joseph Young—Textile Chemist, Max Pollack & Co., Inc., Willimantic, Conn. Sponsors: L. A. Olney, H. C. Chapin.

Junior

Frederick W. Corden—Asst. Dyer, Hope Webbing Co., Pawtucket, R. I. Sponsors: R. W. Joerger, B. Verity.

Kenneth R. Fox—Research Asst., Mass. Inst. of Tech., Cambridge, Mass. Sponsors: E. R. Schwarz, H. H. Broadfoot.

Stanley Knoel Freeman—Textile Chemist, Sandoz Chemical Works, Inc., New York, N. Y. Sponsors: J. C. Walker, J. E. Meili.

Robert K. Lyle—Dye Chemist and Demonstrator, National Aniline & Chemical Co., Boston, Mass. Sponsors: C. L. Daley, H. C. Chapin.

Student

Thaddeus Bardzik—Lowell Textile Institute. Sponsor: L. A. Olney.

Stanley C. Koulas—Lowell Textile Institute. Sponsor: L. A. Olney.

Angus H. Roberts—Lowell Textile Institute. Sponsor: L. A. Olney.

Basil G. Skalkeas—Lowell Textile Institute. Sponsor: L. A. Olney.

MEETING, NORTH CAROLINA STATE COLLEGE STUDENT CHAPTER

THE North Carolina State College Student Chapter held its first meeting of the year for the purpose of electing officers. Officers elected for the coming year were: William S. Pearson, Chairman, and George W. Funderburk, Secretary. The retiring officers are: Seymour Sandler, Chairman, and William S. Pearson, Secretary.

Professor A. H. Grimshaw, our advisor, gave a short talk on the purpose of the Association and at the same time pointing out some of the benefits which are derived by student members of the organization.

The State College Chapter plans to continue the custom of having outstanding men in the field of textiles to come to the college and deliver lectures during the school year.

Respectfully submitted,

GEORGE W. FUNDERBURK, *Secretary.*

TESTS AND CLASSIFICATIONS FOR LIGHT FASTNESS

THE Committee on Fastness to Light of the American Association of Textile Chemists and Colorists with William D. Appel of the National Bureau of Standards as Chairman, has cooperated with the National Association of Finishers of Textile Fabrics Technical Committee on a draft of tests for fastness to light of all textiles and classifications based upon these tests, for use in labeling textiles for the benefit of consumers. This committee is also participating in the recommended revision of "Woven Dress Fabrics — Testing and Reporting, Commercial Standard, CS59-39." The work of this committee is very important in view of the increasing interest of consumer groups in the labeling movement. The membership of this committee is composed of some of the best qualified specialists in the field, who are to be commended upon their fine work in the interests of standardization.

OBITUARY

JOHN ROBERT GARNAUS

JOHN ROBERT GARNAUS, Secretary of Geigy Company, Inc., passed away on Sunday, November 17th, after an illness of almost four and a half years.

Mr. Garnaus spent his entire career in the dyestuff business, apprenticing himself in 1914 with J. R. Geigy, S. A. in Basle, Switzerland, which training was interrupted by service with the U. S. Diplomatic Corps in Switzerland and France, and upon the entry of the United States in the World War, he enlisted and performed outstanding service in the Intelligence Corps of the A.E.F. in France and Germany.

In 1919 he returned to the United States and to the Geigy organization in New York where he was made assistant to the Director of Sales and in February, 1933, he succeeded William F. Kip as Director and Secretary of the company, the position occupied by Mr. Garnaus' father until his death in 1909.

Mr. Garnaus was born in Brooklyn in 1896, the son of John C. and Annie Buechner Garnaus and was educated at Poly Prep Grammar School and Manual Training High School. Aside from the period spent in Europe, he lived his entire life in Brooklyn where he was interested in charities and in particular the Colony House which he served on the Men's Council.

Mr. Garnaus is survived by his wife, Beatrice Scarborough Garnaus, a daughter Nancy, his mother, a sister Anita, and two brothers, Harry and Edward.

• EXCLUSIVE SOUTHERN HEADQUARTERS

Effective immediately, the branch office of Textile-Finishing Machinery Co. in Charlotte, North Carolina, Room 614, Johnston Building, Telephone: Charlotte 6890, is to be their exclusive headquarters in the southern territory.

This office will be under the personal direction of Arthur F. Black, Southern District Manager. Mr. Black has recently been employed to supervise sales and service in the southern territory. Byram B. Scantland will continue to make his headquarters in the Charlotte office and will assist Mr. Black in representing Textile in that section of the South which he has covered for the past three or four years.

Samuel A. Moffitt, until recently employed as a sales engineer in the Charlotte office, has been transferred in similar capacity to headquarters in Providence, R. I.

Under the present arrangement, the representation, as above outlined, is exclusive as far as the interest of The Textile-Finishing Machinery Company and their clients is concerned, with the men mentioned, working as direct employees of The Textile-Finishing Machinery Company.

• NEW TEXTILE RESIN

A new resin for textile finishing with the elastic qualities of rubber latex has recently been announced by the Röhm & Haas Company of Philadelphia. While similar to latex in its elastic properties, this new resin is said to have many advantages in that it does not oxidize with age; does not develop an odor; and does not cause discoloration of the fabric. The new type resin can be used in concentrated form for coatings on fabrics, or in more dilute form for impregnating fabrics to produce a variety of very unusual finishing effects.

The new elastic resin is a modification of the acrylate or RHoplex type. Like the other acrylate resins, the new product will be sold as a concentrated aqueous dispersion. Like the other acrylate resins, the new elastic resin produces films that are said to be tough and durable, colorless, odorless, and require no curing or special handling.

Three grades of the new elastic resin are available: Soft, medium, and hard. The softest resin in the series is the most elastic and rubber-like. While it is soft, it is not tacky. Films formed by this resin do not soften with heat or become brittle and hard when cold. The soft resin in the series is said to be an excellent coating material for fabrics for producing tough, elastic films.

The medium grade resin produces a firmer and drier film that is not quite as elastic. This resin can be blended with the softer resin to obtain intermediate effects. The medium resin is said to produce excellent coating effects, as well as a variety of unusual fabric finishing effects on rayons and cottons.

It is stated that the hardest resin in the series is outstanding for its complete resistance to solvents. In low concentrations this product is said to produce unique finishes on spun rayon fabrics, as well as unusually soft, full, non-slip finishes on rayon satins and taffetas.

• ARIDYE PATENTS

Years of research and development work in the application of pigment colors to textile printing culminated recently in the issuance of patents to Interchemical Corporation, parent company of Aridye Corporation, Fair Lawn, N. J.

The claims allowed are broad, covering both the products and the methods. Method claims are comprehensive enough to cover all applications in textile printing of coloring emulsions consisting of binder solutions thickened by dispersed water. The product claims cover the use of heat-setting resins in these thickened pigmented emulsions. Such resins are said to be essential for the production of the fastest prints.

It is stated that, since their introduction almost three years ago, the Aridye colors have brought new concepts to the textile printing field. Printing with pigments had previously been done only with limited success and then only in very specialized fields. Unusual clarity of impression and fine definition of detail has been claimed for the Aridye colors, and their properties of light fastness are said to equal or surpass the most expensive dyestuffs.

The Aridye colors and the methods for applying them are developments of Interchemical's research. Research was begun on them several years ago, but commercial Aridye applications were not made until 1938. It is stated that the fastness and sharpness of impression won for Aridye colors early recognition in the shirting field. Later, Aridye was adapted to dress goods printing, and today, printing plants of all types are using the process.

While the first Aridye formulations were applied to cotton goods, later developments produced Aridye colors for printing on synthetics, including viscose, acetate, and Bemberg rayon. Shirtings, dress goods, slacks, drapes, playsuits, pajamas, automobile tops, and a variety of other textile goods are being colored now with Aridye.

The broad claims in the Aridye patents indicate the scope of Aridye's commercial applications and the extent of the research and development program back of these applications. One of the most important method claims, as listed in U. S. Patent Number 2,222,582, is the following:

> "The improvement in the art of textile printing, which consists in substituting for the dye pastes heretofore used in printing textiles a pigment-colored printing paste consisting of an emulsion having a continuous, thin, water-immiscible, lacquer phase containing the pigment, bodied to printable consistency by a dispersed aqueous phase."

The patent claims allowed on Aridye colors themselves are also comprehensive. Here is one of them from U. S. Patent Number 2,222,581:

> "A textile printing paste consisting of an emulsion having an outer continuous water-immiscible-lacquer phase consisting of thin pigmented lacquer containing a binder amounting to at least twice the amount of pigment by volume and including a readily heat-polymerizable synthetic resin which can be converted into

an insoluble state by heating after printing, and thickened to printing consistency by an inner aqueous phase amounting to at least 20 per cent of the total emulsion, by weight."

Interchemical's Research Laboratories have been cooperating with the Development Laboratories of Aridye Corporation in producing other improvements in the art of dyeing and printing on fabrics. Several recent developments are in commercial use, although patents have not yet been issued on all of them.

The wider application of Aridye printing gives rise to new opportunities in textile design, it is claimed. It is stated that the designer is offered greater latitude with the sharp definition which Aridye printing makes possible, its range of shades and its new brilliant colors, along with its ability to reproduce fine shading effects. It is further stated that in addition to the yardage of shirtings printed with Aridye for fastness and the even greater yardage of dress goods printed with Aridye for brightness, photographic effects have been reproduced with Aridye on millions of yards of material for beach coats, pajamas, housecoats, and similar garments.

• AMUNO

Merck & Co., Inc., Rahway, N. J., has sent out a brochure, first in a series dramatizing research in connection with Amuno. This series will be sent to merchandise managers and buyers of department stores throughout the country. Amuno is a compound which, applied to fabrics during the process of manufacture, is said to create entirely new standards of moth protection. Its use by manufacturers is controlled by a license agreement which involves technical study of each mill, development of individual methods of application and laboratory analysis of each lot of merchandise treated with Amuno. The brochures are part of a campaign planned to stimulate the interest of retailers in moth protected merchandise and to call attention to the rapidly developing profit possibilities which exist in promoting and selling such merchandise.

• MODERN INDUSTRIAL WEIGHING

The Exact Weight Scale Co., Columbus, Ohio, has recently issued a folder entitled "The Story of Modern Industrial Weighing." This presents pictorially the application in individual industries of scales which have been especially adapted to requirements of the particular industry. Copies are available upon request.

• ROHM & HAAS CATALOG

Rohm & Haas Co., Inc., 222 West Washington Square, Philadelphia, Pa., has issued a catalog entitled "Textile Chemicals" which summarizes briefly the properties of each product offered in the following general fields: reducing and stripping agents, synthetic resins for sizing and finishing, synthetic thickeners and softeners, starch and protein solubilizing enzymes, wetting and scouring agents, printing thickeners and pigment binders, germicides and fungicides, humectants and hygroscopic agents. Copies of the catalog are available upon request.

• GENERAL RELEASE

General Dyestuff Corp., 435 Hudson Street, New York, N. Y., has released a circular describing the following product:

Nekal NS—a new type of wetting agent which comes in the form of a clear amber colored liquid which is miscible with water in any proportion. It was developed specifically for instantaneous wetting even in a cold bath. It will be found most useful in neutral padding and for wetting gray goods and skeins. It is stated that a very valuable and special feature of Nekal NS is its ability to rewet.—Circular G-203.

• AVITEX MANUAL

A technical service manual describing the varied uses of "Avitex" textile finishing agents has been issued by the Du Pont Company in a new edition. It represents extensive experience in the field. It is designed for practical working conditions, the data covering mill applications in cotton, wool, rayon, silk and linen. Properties of the several "Avitex" products are outlined.

Introduction of the fatty alcohol sulfate products has been followed by development of new types, it is explained. These additions broaden the usefulness of the earlier materials with individual finishing characteristics and working properties. New chemical types have also been introduced.

It is stated that the new materials are regarded by finishers as tools for producing finishes of a quality heretofore not available, it is pointed out. Important advantages listed in the bulletin include improvement in clarity of whites, brightness of dyed and printed fabrics and freedom from rancid storage odors. Also, it is emphasized, the new finishes do not develop yellow discoloration on bleached fabrics or on white grounds on hot processing.

• Du PONT EXHIBIT AT N. Y. W. F.

The Du Pont "Wonder World of Chemistry" exhibit attracted 4,371,227 visitors through the second season of the New York World's Fair, it was announced as a statistical view of the period became available. Attendance during the two sessions totaled 9,734,438, the first year electric eye count at the exhibit showing 5,363,211.

Slightly more than 23 per cent of the total Fair admissions paid the Du Pont show a visit this year. Du Pont officials estimated that actually, more than half the visitors attending the Fair in the two seasons journeyed through the "Wonder World" show, surveys indicating that the average visitor made three trips to the exposition. Attendance at the exhibit exceeded forecasts, it was added, demonstrating an increasing public interest in new chemical developments.

Outstanding interest among visitors was displayed toward textile developments. Nylon occupied first place in the second season's list of attractions. The full-fashioned hosiery machines transformed 8,500 miles of nylon thread into stockings at the rate of 18 pairs a week.

Enough acetate rayon yarn to span the Atlantic was spun during the second year by the tiny rayon spinning machine on display. The total was 6,120,000 yards, or 3,477 miles.

Weaving as well as the spinning of rayon was shown. On a loom with a Jacquard attachment, some 400 banners showing the exhibit building were woven in colored rayon yarns. Only a few threads were woven during each lecture, or about an inch. The finished banner contained four kinds of weave: satin, tabby, twill and broken twill.

A display of rayon velvet fabrics of luxurious texture drew comment from many of the visitors at the exhibit, as did various rayon gowns shown.

The "Wonder World" exhibit presented a comprehensive interpretation of the chemical industry and its influence on contemporary life. Representatives of the company expressed gratification with results achieved at the Fair.

• DOUBLE CONE BLENDER

H. K. Porter Company, Inc., 4903 Harrison St., Pittsburgh, Pa., has just issued a 4-page bulletin describing their new Double Cone Blender. Designed to eliminate waste of time and materials in the blending of chemicals, plastics, pharmaceuticals and similar products, the machine is described in complete detail in the new circular. A chart listing sizes, horsepower required, weight and other pertinent data, is included. Page 4 of the bulletin illustrates and describes five additional Porter products for use in the process industries. A copy may be obtained by writing the manufacturer.

• NEW TEXTILE HANDBOOK

Burkart-Schier Chemical Company, Chattanooga, Tennessee, has prepared a new handbook, "The Textile Application of Metasol (Calgon,)" which gives detailed information covering the wet-processing operations of scouring, bleaching, dyeing and finishing.

The handbook is conveniently divided into individual sections each applying to major textile fibers. In addition, there is a general discussion of the use of Metasol in processing all types of hosiery. The text contains numerous suggested procedures, formulae and other practical data obtained

through research and thorough study of practical mill operations. The company will mail copies on request.

• CALCO'S NEW EFFLUENT TREATMENT PLANT

A new $500,000 effluent treatment plant was officially placed in operation at the Bound Brook, New Jersey, plant by the Calco Chemical Division, American Cyanamid Company, on November 7. Governor A. Harry Moore, members of the State Department of Health and Sanitation, as well as various local and company officials, were present at the opening.

The development of the new treatment methods used in this plant, was outlined by Dr. V. L. King, Technical Director of Calco, at a luncheon attended by the Governor and the other guests.

Calco's efforts to meet the problem of treating effluent commenced some fifteen years ago when a systematic plan was effected so that similar effluents from various Calco units were grouped together for individual study. This individualized treatment has done much in the past, according to Dr. King, to prevent the effluent problem from being more serious. Presses, settling tubs, oil traps and other devices prevented much objectionable matter from reaching the nearby Raritan River.

Seeking to meet standards established by the State Department of Health, Calco undertook in 1937 to meet the increasingly important problem of treating its waste liquors.

"Our studies covered," said Dr. King, "contacts and investigations all over this country and all over all the western industrial countries of Europe. The many outside engineering concerns that we conferred with were unable to present any plans that resembled a satisfactory method of treatment for the effluents. Our industrial waste is of such a complex character that no methods of treatment were known. Because of this, it soon became apparent that the only solution was for us to develop a process ourselves."

Dr. King went on to outline the early laboratory work and the erection of a $20,000 pilot plant capable of treating 40,000 gallons per day.

The new plant, as it was described by Dr. King, is located nearly a mile westward from the main Calco plant. It is made up of, first, a compositing basin having a 5½-acre surface. The bulk of decolorizing takes place here. Adjacent to this first basin is another where ten million gallons of alkaline carbonate obtained from the nearby Johns-Manville Company have been collected. Thirdly, there is mixing and controlling equipment which automatically regulates the addition of the carbonate slurry to the treated effluent to maintain a constant pH. The next unit in the process is a 60 million gallon capacity settling lagoon having a 23-acre surface, which gives a 5- to 6-day detention period. Lastly, is a diffusion, aeration and dilution dam stretching across the Raritan River. This accomplishes rapid and full dilution of the treated effluent with the river water as it comes over the dam.

Governor A. Harry Moore of New Jersey (in center) and F. M. Fargo, Jr., head of Calco (left), and other officials leaving the building that houses the automatic control equipment and the laboratory connected with Calco's new effluent treatment plant.

Following the luncheon, at which Dr. King outlined the operations of the new plant, the group travelled in busses to the plant itself. Here a convincing demonstration was made of the effectiveness of the new plant in preventing pollution of the Raritan River, in this way helping to protect the health of the New Jersey communities along its banks.

• NATIONAL CHEMICAL SHOW

Chicago will be the chemical capital of the world December 11 to 15 with the holding of the first biennial National Chemical Exposition and Industrial Chemical Conference at the Stevens Hotel under the auspices of the Chicago Section of the American Chemical Society.

More than 20,000 are expected to come from all sections of the country to view the show and participate in the conference which will be addressed by noted authorities including Gustav Egloff of Chicago, who has been cited many times by the American Chemical Society for his contributions to the science of chemistry. One of the world's most noted petroleum chemists, Mr. Egloff is the author of many books on the subject. He will talk on the "Service of Chemistry to Industry."

Other widely known personalities in the chemical world who will address the conference include Walter G. Whitman of Boston, Mass.; Per K. Frolich, C. G. Fink, C. L. Gabriel and James A. Lee of New York City; A. L. Ter Louw, Rochester, N. Y.; E. C. Britton and John J. Grebe, Midland, Michigan; L. W. Bass, Pittsburgh, Pa.; C. A. Elvehjem, Madison, Wis.; J. R. Bailey, Wilmington, Del.; C. E. Friley, Ames, Iowa; Allen Abrams, Rothschild, Wis.; C. D. Hurd, Evanston, Ill.; Bruce K. Brown and William F. Henderson, Chicago.

S. C. Lind of Minneapolis, President of the American Chemical Society, who has indorsed the exposition, will preside at the session of the conference to be addressed by Mr. Egloff.

Added significance will be given the show and conference because of the vital part chemists are destined to take in the program for national defense.

An educational and scientific exhibit, which will dramatize the progress of the chemical industry, will also be a highlight of the exposition. The display is being assembled by Dr. C. Robert Moulton, formerly of the Museum of Science and Industry of Chicago and associated in an executive capacity with A Century of Progress.

Another interesting feature of the five-day exposition will be a display of educational motion pictures assembled from all sections of the country. There will be from fifteen to twenty films available for showing during the period of the show.

Space has been assigned for a display of prints in the fourth annual chemists' salon of photography contest upon to chemists who are not engaged in a professional photographic capacity. The contestants may submit a maximum of four pictorial prints and four scientific prints. Awards will be made in each group. Entry blanks and conditions of entry may be obtained by addressing the Salon Committee, Chicago Chemists' Club, Room 413, Stevens Hotel, Chicago.

The exposition will occupy approximately 32,000 square feet in the Exhibition Hall of the hotel. Exhibitors will represent all departments of the industry including chemical companies, machinery and laboratory apparatus.

The exhibits will stress the extraordinary properties of materials and uses of equipment, in order that the show will be strictly in tune with the ethics and objectives of the sponsors, to foster chemistry and its application. Booths will be manned by experts conversant with the technical aspects of products exhibited.

It is reported from headquarters of the show at 110 North Franklin Street, Chicago, that inquiries indicate a large attendance of chemists, engineers, production managers, plant superintendents, foremen, purchasing agents and industrial executives from all sections of the United States and Canada eager to learn of new developments and the adaptation of old products to new uses.

The Industrial Chemical Conference will be in the nature of symposia on "Newer Developments in Chemistry and Chemical Engineering" with programs timed to afford those who wish to hear the talks in which they are interested ample opportunity also to view the show.

Victor Conquest, program chairman, states that the conference and show will reveal the latest scientific information, new discoveries and developments in the science of chemistry and its application and progress in many fields of activity.

Technical sessions of the conference have been arranged for Thursday forenoon and evening, December 12; Friday forenoon and evening, December 13, and Saturday afternoon, December 14.

Serving on the show committee with Dr. Newton, who is chief chemist of Swift & Company, are Victor Conquest, Armour & Co.; Arthur Guillaudeu, Swift & Co.; E. H. Harvey, Consulting Chemist; W. F. Henderson, Chairman of the Chicago Section, American Chemical Society, ex-officio; L. M. Henderson, Pure Oil Co.; W. M. Hinman, Frederick Post Co.; C. D. Hurd, Northwestern University; R. H. Manley, Research Foundation of Armour Institute; L. E. May, Sherwin-Williams Co.; C. R. Moulton, Consulting Chemist; G. L. Parkhurst, Standard Oil Co. (Indiana); H. E. Robinson, Swift & Co.; R. E. Zinn, Victor Chemical Works.

Marcus W. Hinson is the show manager.

● LECTURE ON SCREEN PRINTING

William A. Wolhar, superintendent of dyeing and finishing at Rosemary Manufacturing Company, Roanoke Rapids, recently gave an interesting lecture to the members of the Tompkins Textile Society at North Carolina State College.

Mr. Wolhar was assisted by three textile graduates of North Carolina State College who are also connected with Rosemary. They were: E. B. Manning, head designer; J. E. McGee, vice-president and assistant superintendent; and J. E. Shaw, assistant superintendent.

The lecture given by Mr. Wolhar included the possibilities, advantages, and processes of screen printing. The technicolor movie accompanying the lecture was filmed by Mr. Wolhar in the Roanoke Rapids Rosemary plant.

In reply to questions from the group, Mr. Wolhar explained how the development of screen printing would greatly reduce the imports of this material, and also give rise to a much needed American industry. He also gave specific examples of latest developments in the industry and the possibility for greater improvement by college men of today.

● REGISTERS 60,000th TRADE MARK

"Celamerica" the brand name of products manufactured by Celanese Corporation of America, was the 60,000th trade name registered by the Trade Mark Bureau of the National Federation of Textiles, Inc. That name "went through the mill" on November 20, 1940, which, by coincidence, was only 26 days short of the 26th anniversary of the launching of the Bureau on December 16, 1914, under the auspices of the old Silk Association of America, predecessor of the Federation.

The 60,000 names in the files of the Federation Bureau cover the entire field of textiles and wearing apparel, including all names registered at the U. S. Patent Office and a very large number recorded and used by firms which have not so registered them. The latter constitutes a particularly valuable file, not available in such complete form elsewhere, because it enables the Federation Bureau to supply upon a moment's notice, information as to whether a certain name is being used. Duplication of names in the same or a closely allied line of merchandise, with its attendant confusion, inconvenience and expense, thus can be avoided. The file includes a large number of brand names of fabrics, yarns, thread, etc.

This service of the National Federation of Textiles, Inc., is available to firms which are not members, at a nominal charge.

● CALCO RELEASE

Calcomine Garnet BY Conc. — a claret colored direct dyestuff, is being featured currently in a bulletin issued by the Calco Chemical Division, American Cyanamid Company. It is stated that among the features of this dyestuff that make it noteworthy to dyers of cotton and rayon is its unusual money value. Another characteristic of this dyestuff is said to be its exceptionally good drawing power recommending it for full shades of claret or in combination for deeper shades of bordeaux and mahogany.

Dyers of unions also will find Calcomine Garnet BY Conc. valuable because it produces shades said to be of equal depth on cotton-wool union material with but slight shade difference. Wool dyers will find this dye useful in producing wine and old rose shades. When applied at a boil with Glauber's salt, its fastness to washing and fulling is claimed to be superior to the general run of acid colors of a similar shade.

The producers of this dye have prepared a bulletin giving complete property and fastness tables. Copies of this bulletin will be sent on request. Address Calco Chemical Division, American Cyanamid Company, Bound Brook, New Jersey.

● ALL-PURPOSE SAFETY SHOE

A new and improved type of Davenport Wood Soled Safety shoe is being currently announced by the F. J. Stahmer Shoe Co. of Davenport, Iowa. According to O. G. Bargmann, General Manager of the Company, this new Davenport Wood Sole Shoe is especially designed for use where ordinary leather soled safety shoes do not offer sufficient protection.

In designing this shoe, careful attention

Davenport Safety Shoe

was given to making it a comfortable shoe as well as a foot protection. Vamps and uppers are made of pliable, tough oiled grain leather. Sole leather is used for counters. Special felt insoles are thicker for added comfort. Wood soles of select close-grained maple have the correct rock from heel to toe for greater ease of walking. Thickness of sole at ball of the foot is 1". Heel thickness is 1¾". The top of the wood sole is specially cut to assure the maximum arch support.

Safety toes in these shoes are available in composition or steel. Composition toe resists pressure up to 600 lbs. Steel toe resists pressure up to 4000 lbs.

To further increase the long wearing quality, this Davenport Wood Sole Shoe has rivet construction where the greatest strain comes on the upper. Uppers are fastened to the soles with wire and copper staple stitching. This type of fastening is said to assure waterproof connection and to prevent moisture from the floors reaching the wearer's feet. A full gusset or tongue protects against dirt and dust working down inside the shoe.

Special optional features for this shoe include Gro-Cord soles and heels, hobnailed taps and iron sole and heel rails. Sizes in this shoe range from 5 to 12 inclusive. No half sizes.

The complete line of Davenport Wood Sole Shoes includes Safety shoes specially designed for all industries where workers require the additional protection of wood soles. Further information can be obtained by writing to the Stahmer Shoe Company, Davenport, Iowa.

● COLOR BLINDNESS CHARTS

The American Optical Co., Southbridge, Mass., has announced new color blindness charts compiled after months of research which began when it became virtually impossible to obtain reliable color tests from recognized foreign sources.

This book of color perception charts is said to now make this country independent of Germany and Japan. Compiled as a result of the foresight of United States military authorities, they will replace as a na-

tional standard in this country the Ishihara test printed in Japan and the Stilling system of Germany. It is stated that the latter is impossible to obtain due to the war and only first editions of the Ishihara collection are considered reliable. The new color tests have been approved by the Surgeon-General, and already several thousands have been supplied to the Army and Navy.

These color tests are invaluable for Army and Navy men, in transportation, in numerous industrial operations, and, of course, for those who examine eyes. Their use in testing the vision of color mixers, color printers and other persons who must have a nice discrimination of colors is obvious.

The forty-six charts come with a booklet of instructions which is self-explanatory. The charts are composed of patterns (figures, letters, etc.) made up of variously shaded dots of the primary colors set on a differently colored background of similar dots in confusion colors. While the figures are easily seen by a normal person, the color blind individual, unable to differentiate colors, cannot distinguish the figures from the background.

● CALCO BULLETIN

"The Practical Art of Color Matching" is the title of Technical Bulletin No. 573, being issued by the Calco Chemical Division of American Cyanamid Company. According to its author, William H. Peacock of Calco's Technical Service Department, this monograph is intended to be a practical guide and a brief technical review of the art of color matching.

The author has divided his material for this bulletin into two parts. The first of these outlines the development of a triangular type of color chart. The discussion of this portion of the subject matter is filled with many diagrams, tables, formulae that will be useful to those interested in blending colors. There is also a full page color chart illustrating the text material.

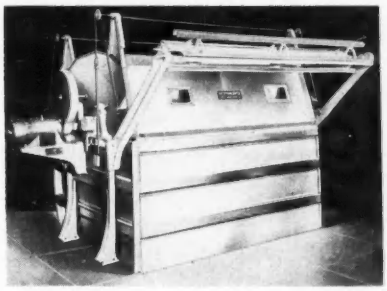
The second portion of Mr. Peacock's article is devoted to a brief review of some thirty-four factors that influence the judging of color effects, most of them essential to colorists in every industrial field. These factors are psychological, physiological, physical, and chemical.

The bulletin is not addressed to any group of colorists in particular. On the contrary, the discussion includes color problems that arise in the textile, leather, paper, ink, plastics, and paper fields. The entire article plus the extensive bibliography listed at the end of the discussion will be most useful to any colorist seeking a convenient summary and collection of the practical aspects of color matching.

Anyone interested in obtaining a copy of "The Practical Art of Color Matching" may have one merely by addressing his request to Calco at Bound Brook, New Jersey.

● NEW BUTTERWORTH KETTLE

A new reel dye kettle recently developed by H. W. Butterworth & Sons Co., Philadelphia, is said to be proving its effectiveness in many mills that dye wool and cotton fabrics in the piece.



Butterworth Reel Dye Kettle

It is stated that this new machine helps to avoid production losses by assuring true colors from the start. The stainless steel construction results in a quicker rinse with no wasted time between lots.

The tub of the Butterworth reel dye kettle is self supporting and seats on foundation below floor level. Drive is fully enclosed gear reduction motor. The machine is equipped with an idler reel and an unloading device with automatic stop motion.

● MEETING, I.R.I.

Problems of industrial research management and of the design of research laboratories were discussed by some fifty active executives in this field at the New England meeting of the Industrial Research Institute on September 27 and 28, with headquarters at the New Ocean House, Swampscott, Mass. Following the meeting it was announced that an inventory would be made by member companies of the special facilities and key personnel of their research organizations in the interests of the national defense program. Nathaniel McL. Sage, Director, Division of Industrial Cooperation, Massachusetts Institute of Technology, was guest speaker at a dinner tendered the members of the Institute and their guests by the United Shoe Machinery Corporation following inspection of the company's new research laboratory at Beverly, Mass. Mr. Sage discussed the administrative problems of educational institutions in the present defense emergency.

The Industrial Research Institute, an affiliate of the National Research Council, was organized several years ago for the purpose of improving efficiency and effectiveness in the management of industrial research, through co-operation of its members. The Membership is composed of industrial concerns maintaining research laboratories as a part of their organization. The top executives in charge of research of the member-companies represent them in the activities of the Institute.

The general meeting was preceded by a session of the Institute's Executive Committee on September 26, in the rooms of the New England Council, Boston, Mass. H. Earl Hoover, Vice President of the Hoover Company, Chicago, is Chairman and presided. Other members of the Committee attending were: L. W. Wallace, Director of Engineering and Research, Crane Company, Chicago, and Vice Chairman of the Institute; H. W. Graham, Director of Metallurgy and Research, Jones & Laughlin Steel Corporation, Pittsburgh, and Past Chairman of the Institute; R. B. Colgate, Director, Colgate-Palmolive-Peet Co., and Past Chairman of the Institute, Jersey City; F. W. Blair, Chemical Director, Procter & Gamble Co., Ivorydale, Ohio; R. C. Newton, Chief Chemist, Swift & Company, Chicago; Maurice Holland, Director, Division of Engineering and Industrial Research, National Research Council, New York; and Caryl P. Haskins, President, The Haskins Laboratories, New York.

● JOIN ERNST BISCHOFF

Ernst Bischoff Company, Inc., of Ivoryton, Conn., announces the addition of Frank A. Decker, Ph.D., of Thompson, Conn., to their textile specialties department. Mr. Decker is a graduate of Williams College and took his Ph.D. in Zurich, Switzerland. For some years he has made a special study of textiles and dyestuffs.

Michael H. Roberts of Stafford Springs, Conn., former president of the Textile Dyeing and Finishing Association and Woolen and Worsted Overseers' Association, well known in the textile field, has also joined the Bischoff organization, representing them in the New England states.

● TECHNOLOGISTS HONOR SALVAGE

In recognition of outstanding contributions to the textile industry, Samuel A. Salvage, retired president of American Viscose Corporation, has been elected an honorary member of the American Association of Textile Technologists, according to an announcement made public recently. He is the first to be similarly honored since November, 1939. "Many years ago," says the Association in its citation, "Mr. Salvage had the vision to see that if the quality of what was then known as 'artificial silk' were improved, it could acquire a major importance in the textile industry. For many years, he was leader of the rayon industry, through prosperous as well as trying periods. His demands for continuous improvement in the quality of rayon yarns resulted in great progress in the raising of tensile strength and dyeing uniformity. He believed that the product should stand independently, and fostered the adoption of the name Rayon. He was first to adopt a quality control plan

for rayon fabrics. Not only the rayon manufacturing industry, but also the weaving and knitting industries owe a great debt to his courage and industry."

• HOOKER LIBRARY

The Hooker Scientific Library, operated as a nonprofit institution by Central College, has inaugurated a new service for chemists who lack convenient access to chemical reference works.

For a nominal fee the library will send the data on any question which can be answered by reference to a chemical manual, dictionary or index such as Beilstein, Mellor, Thorpe, Ullmann, formula indexes and the like. Inquiries taking too much time for the low fixed rate will be answered at a proportionately higher cost, for which estimates can be rendered in advance. Full details will be sent in response to requests addressed to: Hooker Scientific Library, Central College, Fayette, Missouri.

• NEW GLYCO BUILDING

The Glyco Products Co., Inc., has approved plans for its new building in Brooklyn, N. Y. This will consist of three sections, the administrative, research laboratory and manufacturing divisions. New manufacturing equipment of stainless steel is being specially designed. The research laboratory will include additional pilot plant and pilot auxiliary equipment. Exceptionally high head-room for the manufacturing unit will make possible the installation of specially designed refluxing and distilling units. Ample space for the installation of additional equipment for new processing and future expansion is now available. The shipping and receiving department has a three car railroad siding, and two enclosed trucking pits. Fronting on the deep water Atlantic Basin makes it possible to receive and ship by water most expeditiously. The administration building and research laboratory will be located at 228-236 King Street, and the shipping and receiving departments will be at Pioneer Street. It is anticipated that operations will be commenced on or about December 15th, 1940.

• QUAKER RELEASES

Quaker Chemical Products Corporation of Conshohocken, Pa., announces two newly developed oils for the conditioning and lubricating of nylon hosiery yarn . . . Nyl-O-Nol No. 1 and Nyl-O-Nol No. 10.

Both products are mixed with water for use and form rich, white emulsions. They are slightly alkaline in reaction, and are said to be non-oxidizing, non-gumming and odorless. The solutions are used in the water pans on the full fashion machines.

Nyl-O-Nol No. 10 is recommended by the manufacturers for mills running with low relative humidities and under such conditions will provide for proper softening of the yarn. Nyl-O-Nol No. 1 is recommended by the mnaufacturers for those mills that run with a high relative humidity because it protects the yarn against the absorption of too much moisture. This in turn is said to prevent the yarn from sticking on the carrier heads and in the carrier tubes and also prevent the finished knitted fabric from showing too much tendency to curl. Absence of curling facilitates handling of the fabric in the seaming department.

It is claimed that both products facilitate uniform knitting results and even stitch, scour out completely without resistance, thus facilitating even dyeing; are very low in applied cost because of the extent to which they are diluted with water for application. Complete technical data with information on the use of these products will be supplied, if requested on your company stationery.

Use
REPORTER CLASSIFIED ADVERTISEMENTS
for results!

• CLASSIFIED • ADVERTISEMENTS

POSITION WANTED: Chemist to supervise the dyeing and processings of rayon, acetate, cotton, also of Lastex fabrics—can take charge of chemical control, improvements, economy and research. Experience with leading organizations. Write Box No. 268, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

POSITION WANTED: Textile School graduate, chemistry and dyeing. Post-graduate courses, advanced microscopy and testing. Two years' experience color-matching fabrics, with practically every type of dyestuff. Presently employed in western state. Wants to prove ability in laboratory of eastern dyestuff manufacturer, where ambition, intelligence and knowledge lead to responsibility. Blue Book references. Write Box No. 273, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

SALESMAN WANTED: Established manufacturer of synthetic resin finishes and printing colors has an opening which is an excellent opportunity for a man with a technical background and selling experience. Write Box No. 278, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

POSITION WANTED: Chemist-Demonstrator. Graduate Lowell Textile Institute. Three years' experience with leading Dyestuff concern. Eight years in cotton textile manufacturing, dyeing and finishing plant as Chief Chemist. Five years' purchasing experience. Excellent engineering and chemical training and experience. Age 36 years. Married. Now employed. Further information on request. Write Box No. 274, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

WANTED: Experienced ribbon dyer familiar with rayon and cotton, skein work, with all types of colors. Write Box No. 275, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

FOR RENT: 4,000 sq. ft. concrete floor, light, live steam and power. Very low rental. Sun Laundry, 2031 Lafontaine Ave., Bronx, N. Y. Phone TRemont 8-3700.

POSITION WANTED: Ph.D. experienced in textile coating (synthetic resins) research and production asks for position. New York or vicinity. Write Box No. 276, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

FOR SALE: Patent for sale: stencil-film for screen printing. Write Box No. 277, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.